



Our Conundrum: Properly Defining Surface Water Augmentation & Direct Potable Reuse



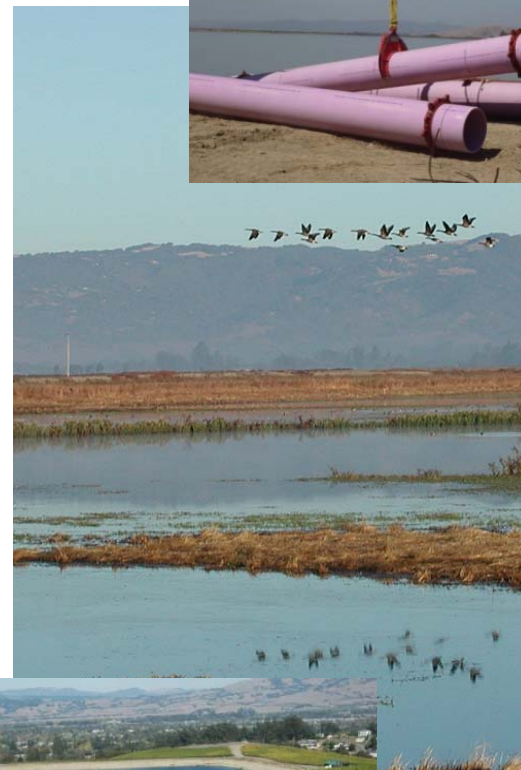
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WaterReuse California
December 4, 2015





Promotes responsible
stewardship of California's
water resources by maximizing
the safe, practical and
beneficial use of recycled water
and by supporting the efforts of
the of WaterReuse Association.



December 2016 Deadline for SWA Regs and DPR Report

- DDW shall report to the Legislature on the feasibility of developing uniform water recycling criteria for “DPR”.
- DDW shall develop uniform water recycling criteria for SWA regulations.

SWA = Surface Water Augmentation

DDW = Division of Drinking Water

DPR = Direct Potable Reuse

What's in a Name

SB 918 (Pavley 2010) Defined Key Potable Reuse Terms

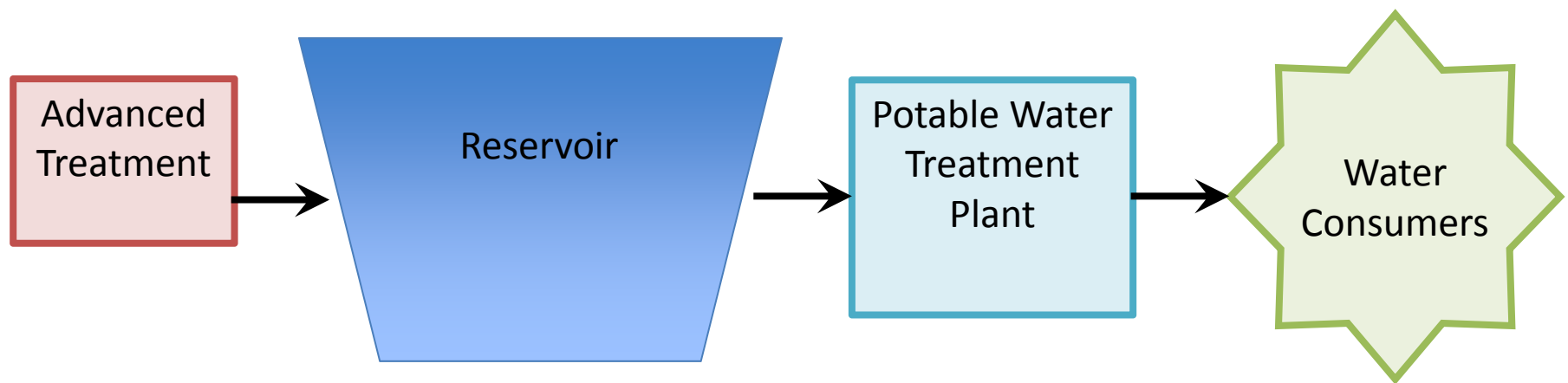
- DPR and SWA statutory definitions contain ambiguities.
- DPR definition for regulatory purposes may depend on outcome SWA



Water Code 13561 (d) "Surface water augmentation" means the planned placement of recycled water into a surface water reservoir used as a source of domestic drinking water supply."

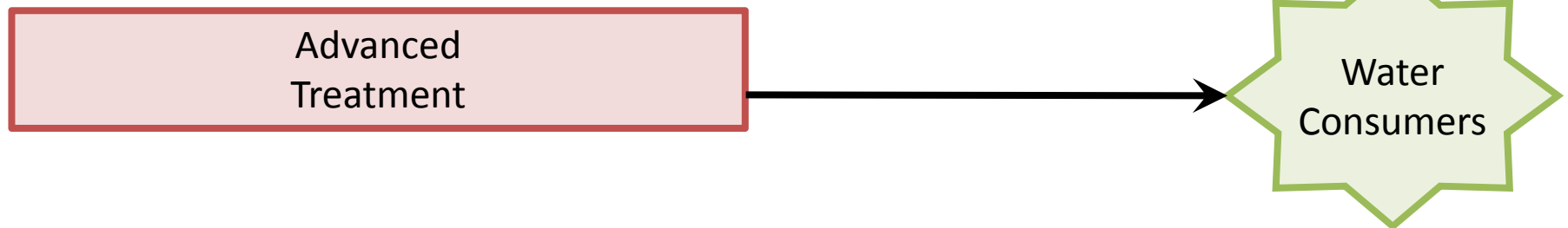
- Defines "Surface Water Augmentation", but it does not provide specifications for the Reservoir, itself.

Surface Water Augmentation



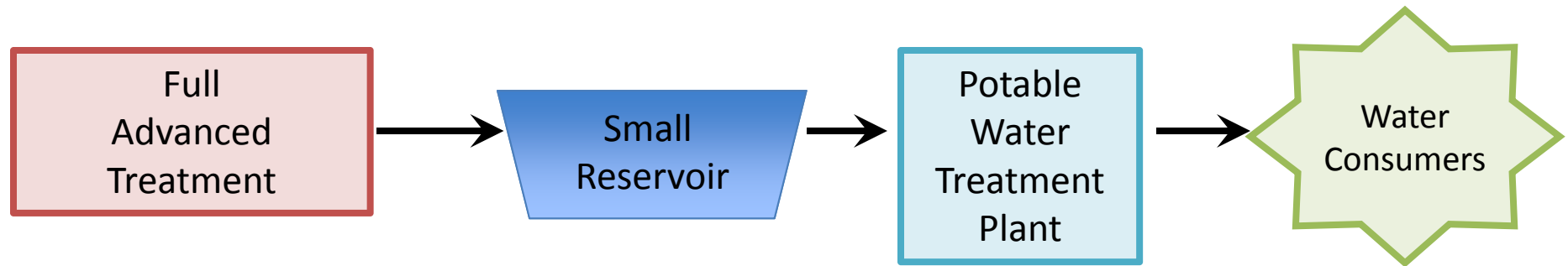
a. "Direct potable reuse" means the planned introduction of recycled water either directly into a public water system, as defined in Section 116275 of the Health and Safety Code, or into a raw water supply immediately upstream of a water treatment plant.

AWT as approved water supply (*Definitely Direct Potable*)



"Direct potable reuse" means the planned introduction of recycled water ... directly into a public water system

“Direct Potable Reuse” With Environmental buffer?

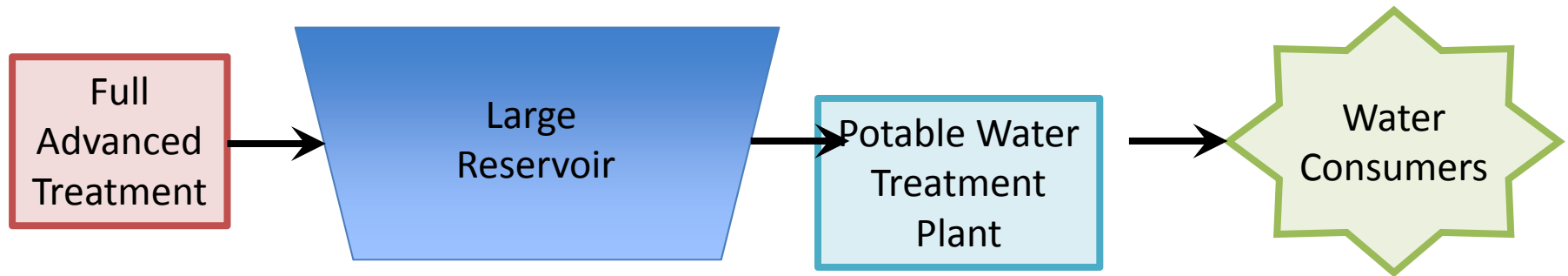


"Direct potable reuse" the planned introduction of recycled water.....into the raw water supply immediately upstream of a water treatment plant.

Without clear statute, DDW and industry must address dilemma: as the reservoir gets smaller, clearly there is a point where SWA and DPR become one.



Reservoir Augmentation



- Retention time:
 - At least 6 months
- Dilution & mixing options:
 - 99-to-1 dilution, or
 - 9-to-1 dilution with +1-log treatment
- No alternative permitting process: reservoir criteria.

DRAFT

Alternatives Section for SWA Regs?

- Used in CA's groundwater replenishment regulations: spreading and injection.
- Allows adaptation of the regulations over time.
- Allows broader applicability of SWA regs.

DDW's Alternatives Sections

- **§60320.130 (spreading) §60320.230 (injection)**
 - **Common elements:**
 - Project Sponsor must
 - Demonstrate alternative provides equal public health protection;
 - Include review by an independent scientific advisory panel
 - DDW must approve the alternative
 - DDW may require public hearings

Narrow SWA Regulations Mean More Projects Fall in DPR Category

- While we have made huge progress in our research to perfect DPR and DPR is in our future, is it appropriate to put the DPR label on today's more conservative reservoir projects?
- Do we need a DPR statutory change?



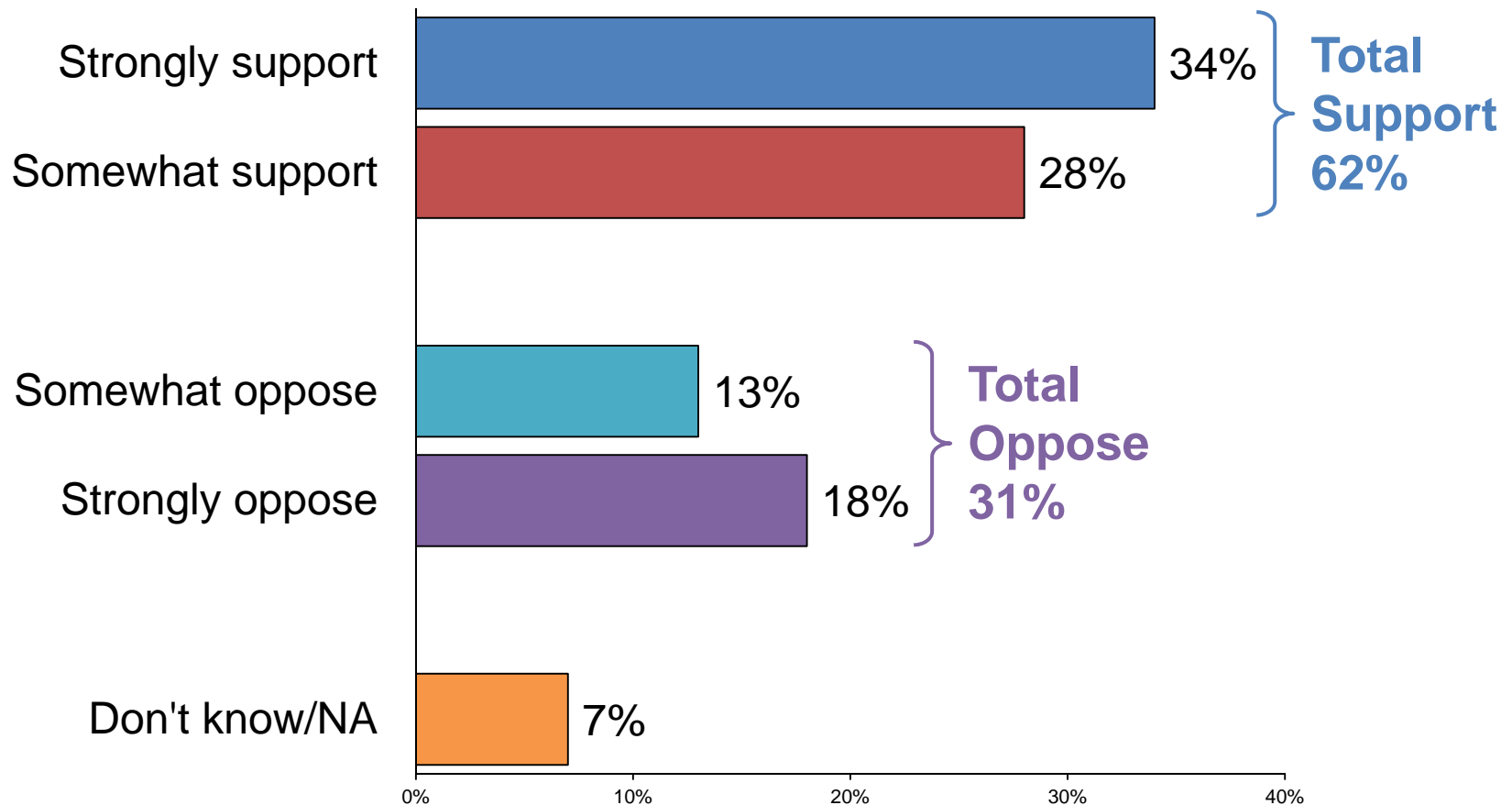
DPR Public Acceptance

WRRF 13-02 Key Results



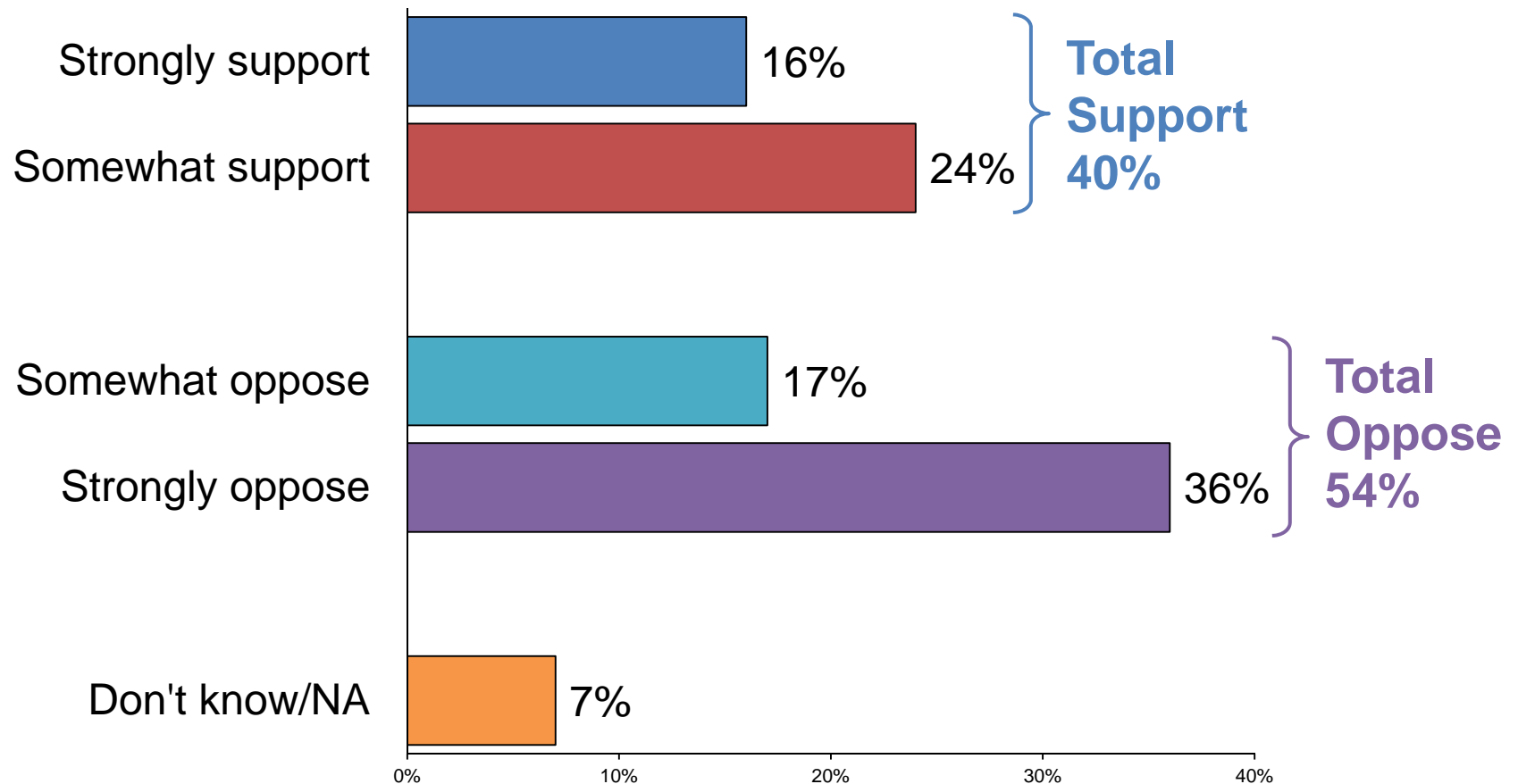
A majority of voters support *indirect* reuse of recycled water for drinking.

Would you support or oppose indirect reuse of recycled water in your community?



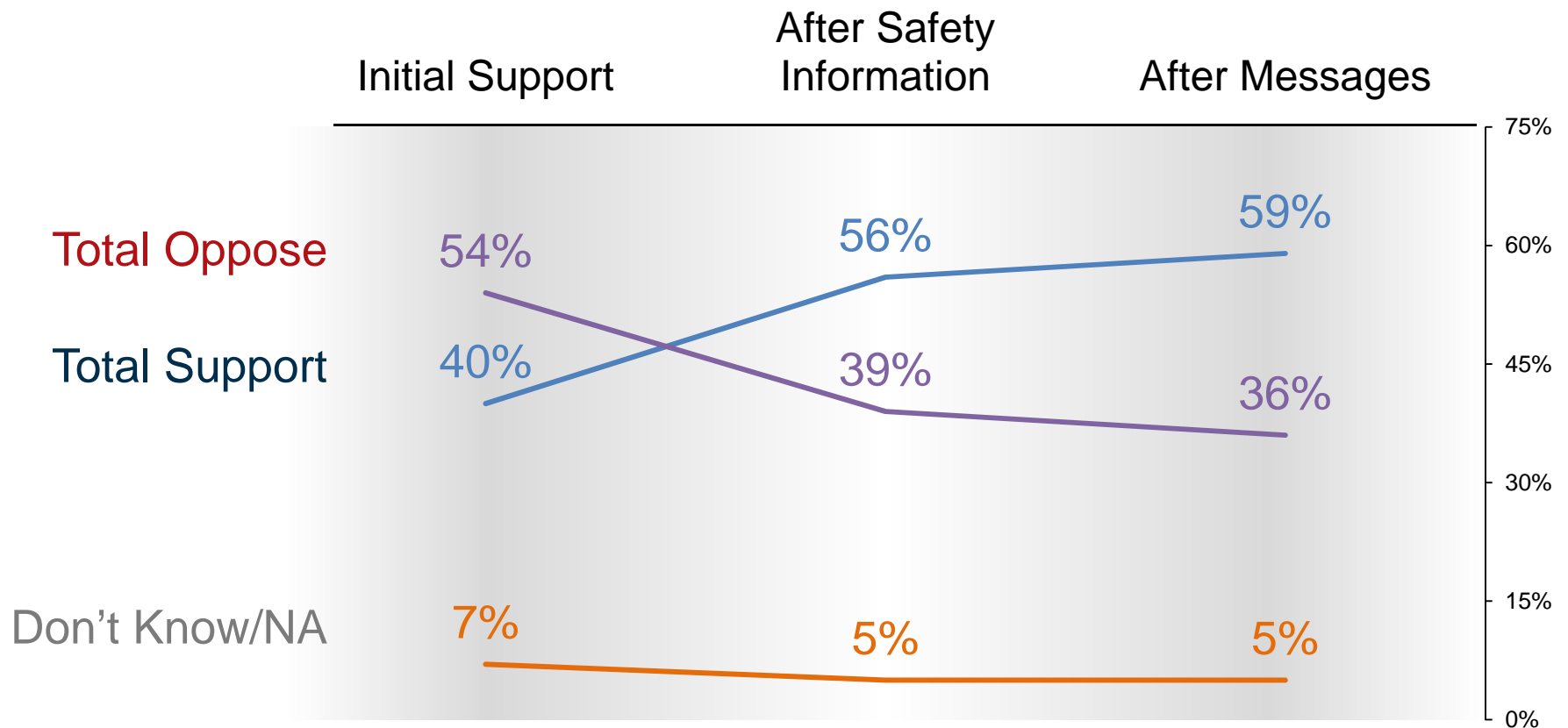
Initially, most voters *oppose* direct potable reuse.

Would you support or oppose the direct reuse of recycled water in your community?



Though they are initially opposed, voters quickly become more comfortable with direct potable reuse after information about safety.

Do you support or oppose direct reuse of recycled water in your community for all household purposes, including drinking?





Conclusions





- WRCA seeking alternative permitting process for reservoir criteria.
- WRCA seeking information on the applicability of current draft SWA regs.
- WRCA internal policy discussion about DPR definition and next steps.

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