

KINGS MANAGEMENT ZONE

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Kings River Water Quality Coalition

Kings River Conservation District

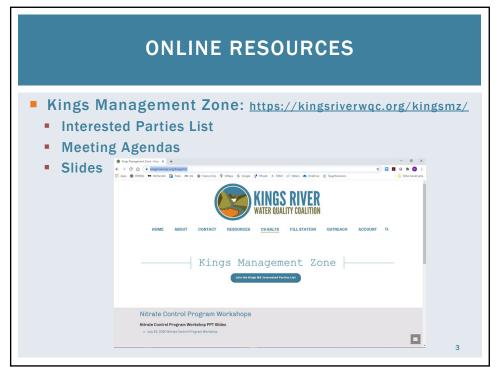
August 27, 2020

1

VIRTUAL MEETING PROTOCOLS

- As an Attendee:
 - You are muted.
 - Use the "Raise Hand" button to ask questions.
 - To un-mute yourself to ask a question (once acknowledged by the speaker)
 - Computer: Teams audio control
 - Phone: *6 on keypad
 - Chat feature
 - Attendance / Introductions
 - Report technical problems. We will assist if we are able.

2







BACKGROUND: HISTORY

- Central Valley Salinity Alternatives for Long-Term Sustainability (CV-SALTS)
- Collective effort to manage nitrate and salt discharges
- Stakeholders discussions on how to balance maintaining a strong economy and discharges while ensuring safe drinking water:
 - Government agencies (Federal, State, Local)
 - Permitted Dischargers
 - Irrigated Agriculture
 - Dairy and Confined Animal Facilities
 - Municipalities (Treatment Facilities)
 - Industrial & Food processors
 - Environmental justice groups

6

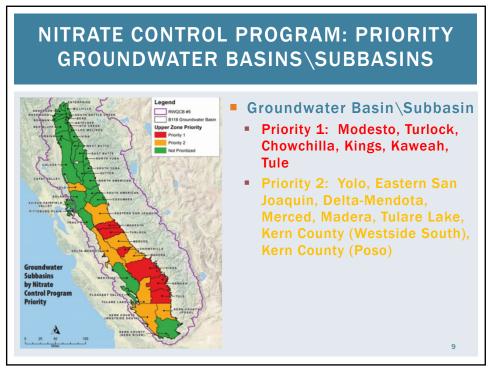
BACKGROUND: POLICY

- Establishment of Central Valley-wide Salt and Nitrate Control Program: Salt and Nitrate Management Plan (SNMP)
 - Adopted October 16, 2019: Amends WDRs and GOs
 - Strong regulatory, technical, and policy foundation
 - Amendments to existing Basin Plans to include new and revised regulations allowing for flexibility to manage salts and nitrates locally while providing safe drinking water supplies
 - Additional Information: CVSALTS.info

7

7

NITRATE CONTROL PROGRAM: GOALS NITRATE CONTROL PROGRAM GOALS **Short and Long** Safe Drinking **Term Solutions Water Supply** Management Goal 1 **Balanced** Ongoing and Nitrate & Salt -Management Goal 2 **Expanding Efforts** Loadings **Management Goal 3** Long-term Where Reasonable, Managed Feasible & Aquifer Practicable Restoration





NITRATE CONTROL PROGRAM: PATHWAY B

- Pathway B Management Zone Benefits
 - Ensure safe drinking water to those who need it
 - Avoid "going it alone" under demanding individual permit (Pathway A)
 - Establish local control and more flexibility than under past regulations
 - Adapt management to local conditions
 - Supports a vision that manages nitrate for a viable local economy and community
 - Share resources, costs, and knowledge
 - Protect water resources over the long-term

11

11

NITRATE CONTROL PROGRAM: PATHWAY B

Pathway B – Deadlines for Priority 1 Subbasins

Deadlines for Priority 1 Subbasins

Regulated dischargers face tight timelines for forming Management Zones. Each of these steps is subject to Regional Board and public review.

Within 9 months of Notice to Comply

Submit Preliminary Management Zone Proposal, which includes an Early Action Plan to provide safe drinking water, to

Regional Board.

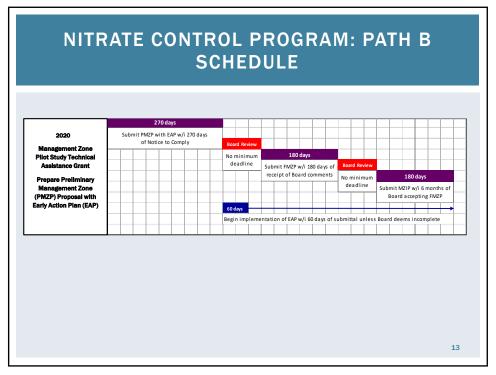
Within 11 months of Notice to Comply:

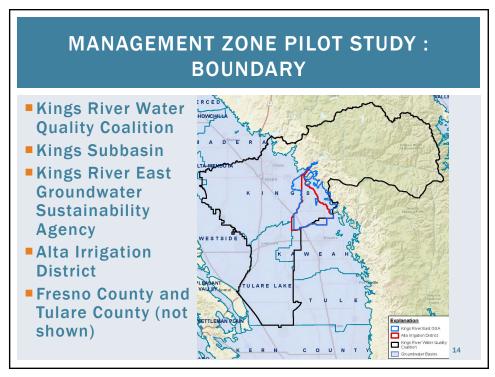
Begin Early Action Plan implementation for provision of drinking water to affected people within the Management Zone. Within 16 months of Notice to Comply

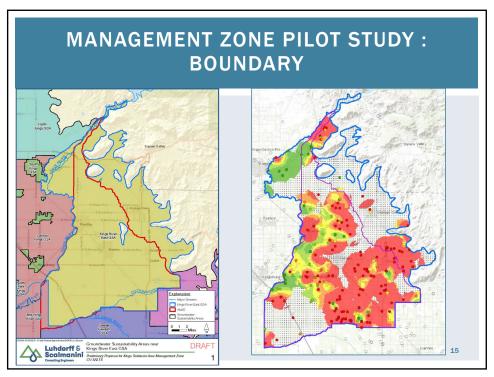
Submit Final Management Zone Proposal to Regional Board. Month 17 and beyond

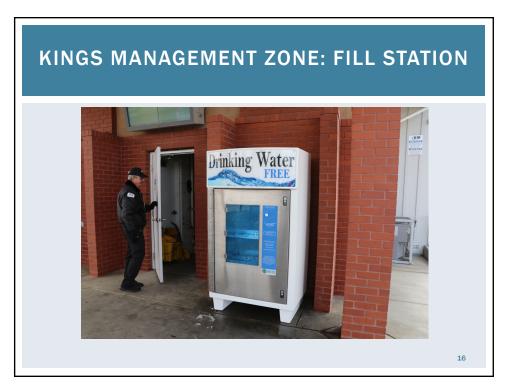
Continue to implement Early Action Plan while also developing Management Zone Implementation Plan for Regional Board approval.

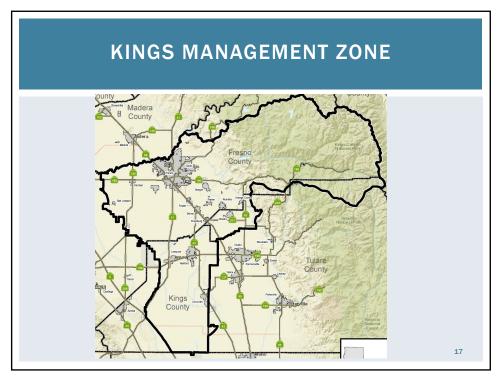
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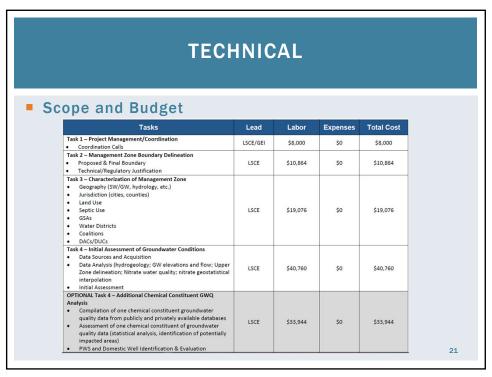




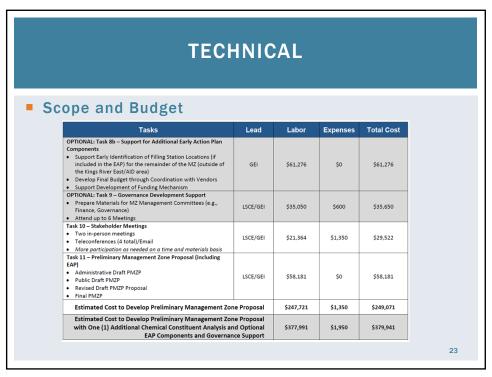
TECHNICAL

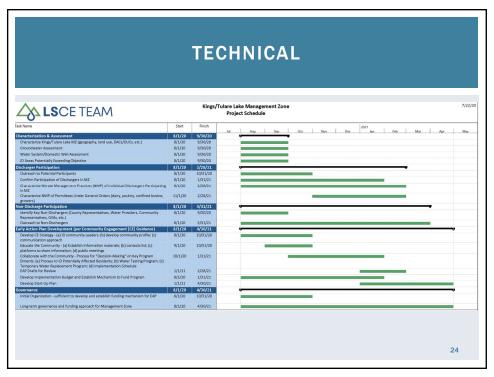
- Technical Team
 - Vicki Kretsinger
 - President, Luhdorff & Scalmanini Consulting Engineers
 - Richard Meyerhoff, PhD
 - Senior Water Quality Specialist, GEI Consultants

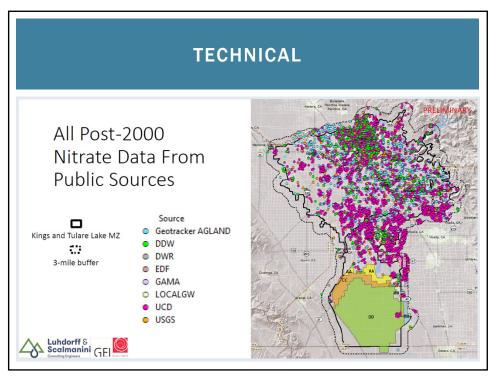
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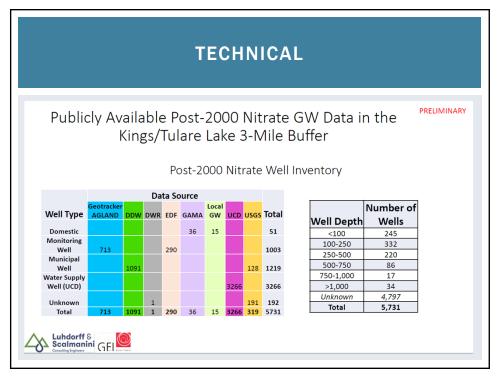


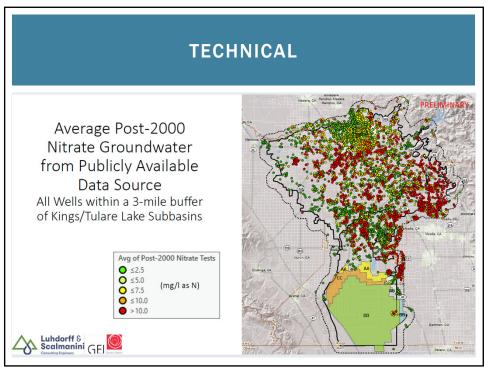
TECHNICAL Scope and Budget **Total Cost** Lead Labor Expenses Tasks Nitrate-Impacted Areas Public Water Supply Systems (PWS, State Smalls, Local Smalls) Potentially-Impacted Public Supply Wells and Systems Public Water System Delivered Water Treatment Status LSCE \$18,152 \$0 \$18,152 Potentially-Impacted Public Supply We Public Water System Delivered Water Potentially-Impacted Domestic Wells Task 6 - Identification of and Coordination with Management Zone Participants Coordinate with KRCD staff/project proponents regarding \$19,620 \$0 Coordinate with KKL ustarly project proponents on the preparation of Draft/Review Summaries pertaining to Individual Dischargers (assumed up to 40 participating individual dischargers and that KRCD staff/project proponents would address permittees under General Orders) Coordinate with project proponents to prepare Final GEI \$21,050 \$0 \$21,050 Summaries Task 8 – Early Action Plan Prepare EAP Drafts (3) with Comment/ Response Table \$0 \$23,846 22











TECHNICAL Next Steps Including Non-publicly available data request · Non-Publicly Available Data: · Reconcile wells with newer data from CV- Review CV-SALTS Kings Subbasin water SALTS HiRes and KAMZ groundwater quality dataset quality databases to supplement Upper Contact County Departments of Public Health: Fresno County, Kings County, and Aquifer data as possible Once all nitrate data is compiled and categorized by depth category, perform Spatial Interpolation (Identify gap areas) **Tulare County** Small water systems Community water systems Identify supply wells impacted by elevated nitrate Domestic well samples from well installation Contact UCD to further investigate UCD · Identify number of domestic wells wells (3,266 wells with nitrate data) to impacted by elevated nitrate assist in depth categorization · Estimate population impacted by elevated nitrate Luhdorff & Scalmanini

TECHNICAL

- Technical Committee (Interim)
 - Should be committed to Pathway B
 - Assist, review, and advise Technical Team
 - Duties
 - Attend and actively participate in technical meetings
 - Offer recommendations
 - Provide input
 - Review materials
 - Time commitment
 - Possibility of quick deadlines and/or meeting notification

29

29

TECHNICAL

■ Technical Committee (Interim)

6 - 8 Members

0 - 0 McMbCl3	
General Order/WDR	Permitted Dischargers
Irrigated Agriculture ¹	1
Animal Feeding (Dairy/Confined Bovine/Poultry)	348
Food Processing	44
WWTP/Municipal	40
Wine	12
Industrial/Manufacturing	8
Recreation	8
Mobile Home Park	4
Energy	3
Onsite Wastewater Treatment System	2
Unknown	10
Total	480
1. Irrigated Agriculture: 3.486 Members and 764.667 irr	rigated acres.



GOVERNANCE

- Valley Water Collaborative (Turlock)
 - Nonprofit Public Benefit Corporation
 - Board of Directors: 12 Directors
 - 3 East San Joaquin Water Quality Coalition (ESJWQC)
 - 2 Central Valley Dairy Representative Monitoring Program (CVDRMP)
 - 7 appointed by ESJWQC and CVDRMP from following groups
 - Wine
 - Poultry
 - Municipalities (3)
 - Industrial/Manufacturing (1)
 - Food Processing (1)
 - Start-Up
 - \$5,000/\$10,000 (Group)

32

GOVERNANCE

Kaweah Basin

- Nonprofit Public Benefit Corporation
- Board of Directors: 5 Directors (current still open)
 - 3 Kaweah Basin Water Quality Association (KBWQA)
 - 2 Central Valley Dairy Representative Monitoring Program (CVDRMP)
 - Other Dischargers considered for Board Seat (8/21 meeting)
- Start-up
 - **\$10,000**

33

33

GOVERNANCE

Tule Basin

- Tule Basin Water Quality Coalition (TBWQC)
 - Managed and lead
 - Re-organization of current structure to non-profit
 - TBWQC Board
 - Special advisory committee for CV-SALTS
 - Agreements with dischargers (TBD)
 - Fee Structure (TBD)

34

GOVERNANCE

Recommendation

- Nonprofit Public Benefit Corporation
- Board of Directors: 5 9 Directors
 - 3 Kings River Water Quality Coalition
 - 2 Central Valley Dairy Representative Monitoring Program (CVDRMP)
 - 2 4 Dischargers or Discharger Groups to be considered for Board Seat
 - Poultry
 - Food Processing
 - Municipalities
 - Wine
- Start-up
 - **\$10,000**
- Fee Structure TBD
 - Tiered
 - Other

35

35



COST SHARING

- Preliminary Management Zone Proposal/Early Action Plan Submittal
 - Estimated Costs: \$350,000 \$400,000

• Technical: \$250,000+

Governance/Legal Fees: TBD

Outreach: TBD

37

37

COST SHARING

Estimated Costs (AID/KRE GSA Pilot Study) to implement EAP

Work Type					Year 1				Year 1 Total	Year 2				Year 2	Annual Costs - Year 3 ff.			
Work Type	Work Subtype		Specific Tesks	Assumptions/Notes	L	Labor*	Eq	penses	Year 1 lots	7	Labor*	ti	penses	Total	Labor*	Expenses		Annual Total
Outreach	Г		Website Development & Management	Initial 50 hours to set up; 4 hrs/month to maintain	5	15,600	5		\$15,600	:	7,200	5		\$7,200	\$7,200	5		\$7,200
			Informational Materials Development	Labor: 120 hours to develop base materials, 8 hrs/month to update and maintain; Expenses: Printing budget	s	25,200	s	10,000	\$35,200	s	14,400	s	10,000	\$24,400	\$14,400	s	2,500	\$16,900
	General Activities		Coordination with Non- Dischargers	Labor: 16 hrs/month initial six months; 5 hrs/month long- term	s	21,600	5		\$21,600	5	14,400	s		\$14,400	\$14,400	5		\$14,400
			Public Notice Mechanisms Established/Managed	Labor: 40 hours initially, 4 hrs/month long-term; Expenses: Assumed cost of \$20\thousand records. Purchase one mailing list/year; \$9,000 records, purchased each year	5	9,600	5	1,000	\$10,600	**	7,200	:	1,000	\$8,200	\$7,200	5	1,000	\$8,200
			Public Notice Events	Labor: 16 hours/event - minimum of 3 meeting notices; up to 8 PAWF facility notices at 8 hrs/notice	s	7,200	s		\$7,200	*	7,200	5		\$7,200	50	s		50
			Initial Meeting	Three venues/meeting round; Labor: 40 hrs/meeting round	5	6,000	5	1,000	\$7,000	:		:		50	50	5		50
		ommunity each Meetings	2nd Meeting	three venuel/meeting round; Lasor: so insymmeting round; Expenses: Supplies, printing (assuming no charge for venues or equipment rental)	3	6,000	5	1,000	\$7,000	5		5		50	50	5		50
			3rd Meeting	venues or equipment rentally	5	-	\$	-	50	\$	1,000	5		\$1,000	50	5	-	50
Resident Identification		ification	Identify Residents; Prepare Mailing List	Costs based on Salinas Program Experience w/1.5x multiplier to account for estimated higher number of residences	s	90,000	s		590,000	s		s		50	50	s		50
Temporary Water Provision Programs	Г	Final Site Selection	Selection of Locations	identify land/property owners who will support program; establish agreements	s	24,000	s		524,000	5		s		50	50	s		50
			Design and Obtain Approvals for Water Filling Stations	Estimated at 160 hours/station (4 in first year; 2 second year)	5	96,000	:		\$96,000	:	45,000	:		\$48,000	50	\$		50
	er Location	Water Filling Stations (up to 6 stations)	Install Filling Stations	Estimated at 530,000/station (2 installed in first year; 4 installed in second year)	s		s	60,000	\$60,000	s		s	120,000	\$120,000	50	s		50
	CORESS W/ alb			Labor: "40 hrs/year/station to maintain; Expenses: \$1,500/year for water usage/station	s	6,000	s	1,500	\$7,500	5	36,000	5	9,000	\$45,000	\$36,000	5	9,000	\$45,000
	Public A	Vendor-	Develop & Manage Vendor-supplied Water Facilities	Labor: Establish agreements/service for 2 facilities (1 in first year; 1 in second year)	s	6,000	5		56,000	s	6,000	s		\$6,000	50	5		50
		supplied Facilities (up to 2 facilities)	Operate/Maintain Facilities	Expenses: Cost of water/imonth. Assumed \$5/5-gallion container. 10 containers/month/household. 200 households/month pickup water (10 per day). [assumed no cost to store water/containers on property.]	5		s	60,000	\$60,000	5		5	120,000	\$120,000	50	5	120,000	\$120,00

38

COST SHARING

Estimated Costs (AID/KRE GSA Pilot Study) to implement EAP

Work Type	Work Subtype	Specific Tasks	Assumptions/Notes	Year 1				ear 1 Total			w 2	Year 2	Annual Costs - Year 3 ff.			Annual Total
				Lab	or*	Expens		ear A local	Labor*		Expenses	Total	Labor*	Expenses		remoti lota
Temporary Weter Provision Programs	Alternative Witness Program	Conduct Mallout	Labor: Prepare mailout for estimated 2,500 residences (use materials prepared above): Expenses: Postage, printing	5 1	2,000	S 2.	100	\$14,500	s		s ·	50	50	s		50
		Process Requests to Participate	Labor: Review requests; prepare responses; follow-up with residents, as needed	5 1	2,000	s		\$12,000	s	6,000	s ·	\$4,000	50	s		50
		Water Testing	Labor: Coordinate with residents and collect water sample. 8 samples/day at 500 residents = 65 days. Expenses: Of 2,500 packets mailed out, 20% request to participate in ANY (500 residents) and have well tested at 550/test (100 in Year 1; 400 in Year 2)	ı	5,000	\$ 3,	200	\$18,000		60,000	\$ 12,000	\$72,000	50	:		50
		Follow-up Water Testing	Annually, "50 residents request re-testing; completed over 7 days at \$30/test	s	÷	s	- [50	s	6,000	\$ 1,500	\$7,500	\$6,000	s	1,500	\$7,500
			Establish and manage agreements with bottled water delivery and POU treatment system (initial cost; long term management below)	s	7,200	s	-	\$7,200	s		s -	SO	50	s		so
			Bottled Water Program: Labor # Administrative Costs at 8 Instrument, Expenses: Deliver Bestied Water-Estimate of (3005/household/see or 557/household) (300 gal/mont/household of flow) See working for basis. Annumed 130 of 130 households choose bottled water: 30 households by end of Visar 1 (for final 3) months); 100 households by end of Visar 100 by end of Visar 2.	s	3,600	\$ 10)	250	\$13,650	s :	14,400	\$ 100,500	\$114,900	\$14,400	s	120,600	\$135,000
			Install POU Treatment System: Labor in Administrative Costs at 8 hrs./month; Expenses: POU system install: 5600/mouse-bold; OAM: 3550/house-bold;/ear. Assumed: 5000/mouse-bold; OAM: 3550/house-bold;/ear. Assumed: 500 of 2300 house-bold; include 500 of 200 house-bold; include 500 of 200 of 200 house-bold; include 500 of 200 house-bold; include 500 of 200 of 200 house-bold; include 500 of 200	ı	3,600	\$ 15/	000	\$11,600	s	14,400	\$ 45,000	559,400	\$14,400	s	15,000	528,400
			Labor to follow-up with each residence participating in AWT; address identified problems; manage vendors (higher initially to do resident check-in; long-term 8 hrs/month	s	3,600	s		\$1,600	s	24,000	s .	\$24,000	\$14,400	s		\$14,400
Program Management		Monitoring Program	Gather data from PAWTs, AWP, enter into database; data analyses as needed (site monitoring not included)	s		s		50	s	15,000	s -	\$15,000	\$11,000	s	-	\$10,000
		Reporting (incl. Adaptive Mgmt)	Prepare status report	S 1	2,000	s		\$18,000	s	9,000	s .	59,000	59,000	5		\$9,000
			Totals	5 38	5.200	\$ 165.	250	5553,250	5 2	93,200	\$ 419,000	5712,200	5 155,400	5	269,600	\$425,000

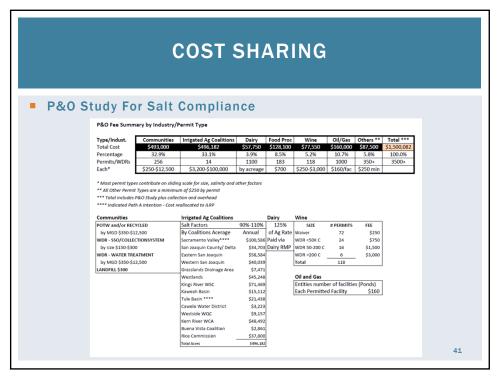
39

COST SHARING

- Future Costs (TBD)
 - FMZP after Board review
 - EAP Implementation
 - MZIP Development: Solutions implemented over the short/long-term
 - MZIP Implementation
- Future Cost Considerations
 - Yearly fee fluctuations
 - Steady State (Reserve build-up)
- Pathway B Selection Deadline:
 - Founding Member: Early notification with no fees
 - Team Member: Late notification with fees
- Fee Structure TBD
 - Start-up \$5,000/\$10,000/Other
 - Committee
 - Member/Participant

40

39



COST SHARING P&O Study For Salt Compliance General Order/WDR **Permitted Dischargers** Irrigated Agriculture¹ Animal Feeding (Dairy/Confined Bovine/Poultry) 348 Food Processing 44 WWTP/Municipal 40 Wine 12 Industrial/Manufacturing 8 Recreation Mobile Home Park 4 3 Energy **Onsite Wastewater Treatment System** 2 Unknown 1. Irrigated Agriculture: 3,486 Members and 764,667 irrigated acres.



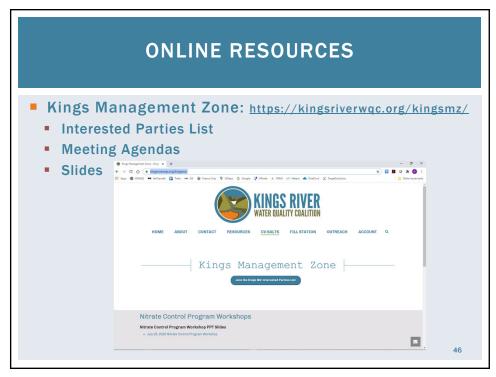
ACTION ITEMS/NEXT STEPS

- Determine your Pathway (A or B) and notify the KRWOC
- Volunteer for consideration for the Technical Committee (interim) – should be committed to Pathway B
- Consider the Governance Options
- Consider your Participation Level in the Management Zone and notify KRWQC
 - Board Seat
 - Committee
 - Member/Participant

44

ACTION ITEMS/NEXT STEPS Deadlines Pathway Selection Board Participation Request Next meeting Governance Start up Costs Participants Doodle Poll for September dates

45





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47