IMPERIAL VALLEY ANNUAL GROWER MEETING

Melissa Turner

Consultant, MLJ Environmental

November 2024

Agenda

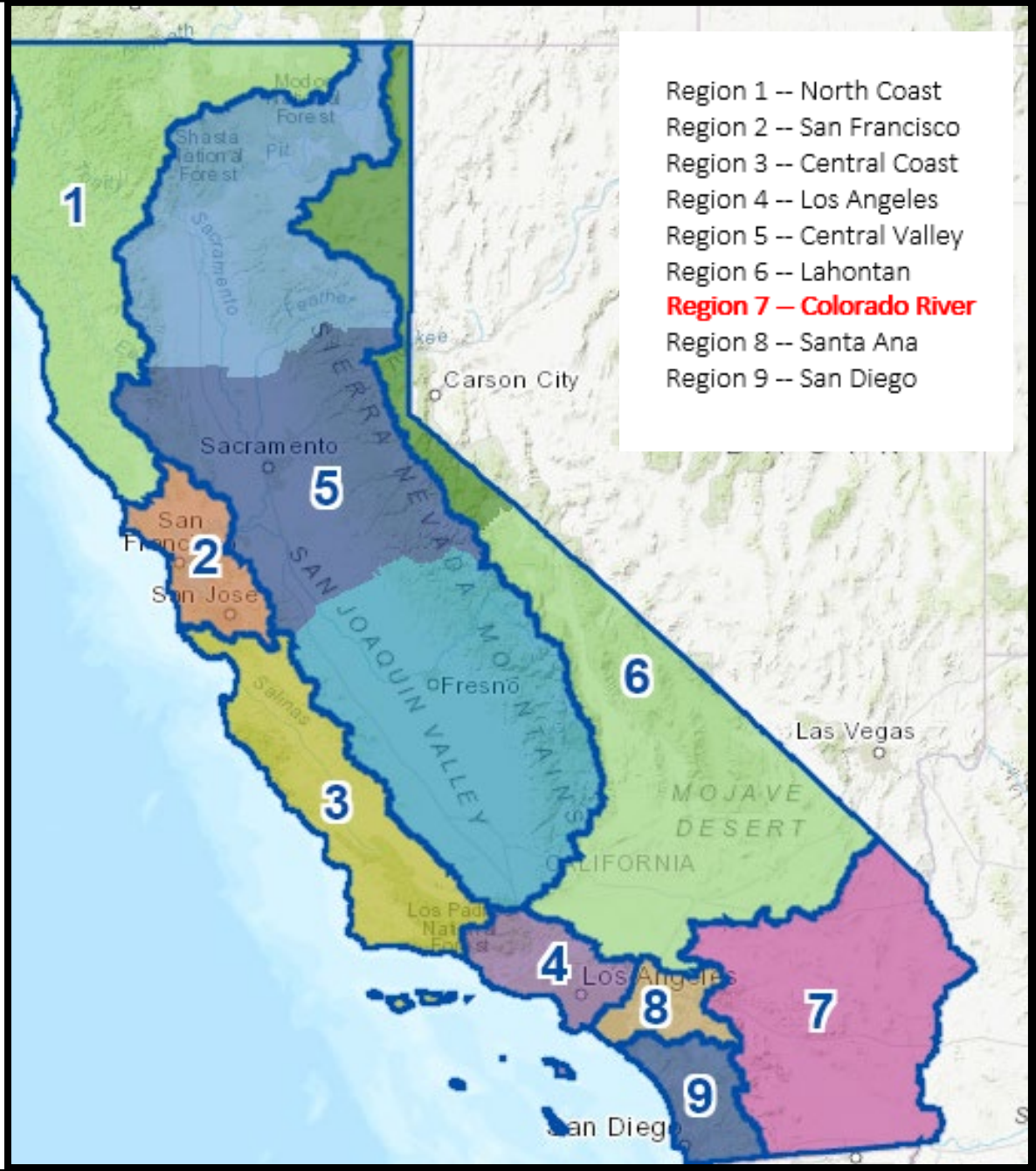
- Program Background
- Updated Member Portal
- Grower Entry Forms
- Nitrogen Removed Coefficients
- Surface and Groundwater Monitoring

CALIFORNIA
WATER BOARDS
Colorado River Basin - R7

Colorado River Regional Water Board

Mission:

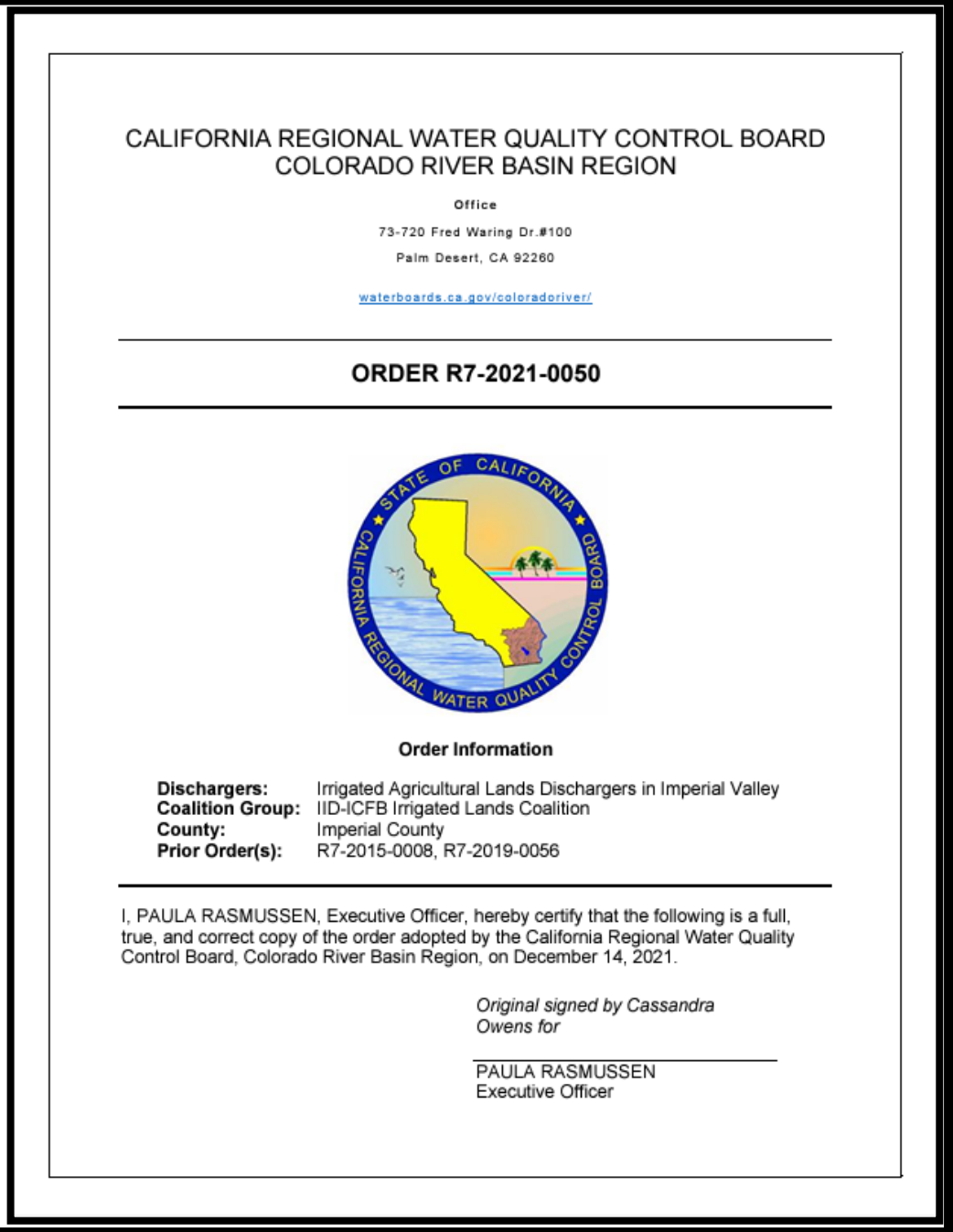
"*To* develop and enforce water quality objectives and implementation plans that will best protect the State's waters, recognizing local differences in climate, topography, geology and hydrology."



History of Water Quality Coalitions

Irrigated Lands Regulatory Programs in California

- ***2004***: Central Valley and Central Coast Regional Water Boards adopted first conditional waivers; 12 coalitions formed in Central Valley; 1 formed on Central Coast
- ***2012***: Central Valley and Central Coast Regional Water Boards added nitrogen fertilizer reporting to requirements
- ***2015***: Conditional Waiver for Imperial Valley adopted (IID-ICFB Coalition formed)
- ***2018***: Central Valley and Central Coast added yield reporting to nitrogen reporting (presidential)
- ***2021***: General Waste Discharge Requirements for Irrigated Lands were adopted for Imperial Valley including the nitrogen reporting



CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
COLORADO RIVER BASIN REGION

Office

73-720 Fred Waring Dr.#100

Palm Desert, CA 92260

waterboards.ca.gov/coloradoriver/

ORDER R7-2021-0050

Order Information

Dischargers:	Irrigated Agricultural Lands Dischargers in Imperial Valley
Coalition Group:	IID-ICFB Irrigated Lands Coalition
County:	Imperial County
Prior Order(s):	R7-2015-0008, R7-2019-0056

I, PAULA RASMUSSEN, Executive Officer, hereby certify that the following is a full, true, and correct copy of the order adopted by the California Regional Water Quality Control Board, Colorado River Basin Region, on December 14, 2021.

Original signed by Cassandra Owens for

PAULA RASMUSSEN
Executive Officer

Imperial Valley Irrigated Lands Coalition

Imperial County Farm Bureau

- Administers all Member compliance and Coalition reporting
- Assists members with ILRP compliance
- Intermediary between growers and Regional Board

Imperial Irrigation District

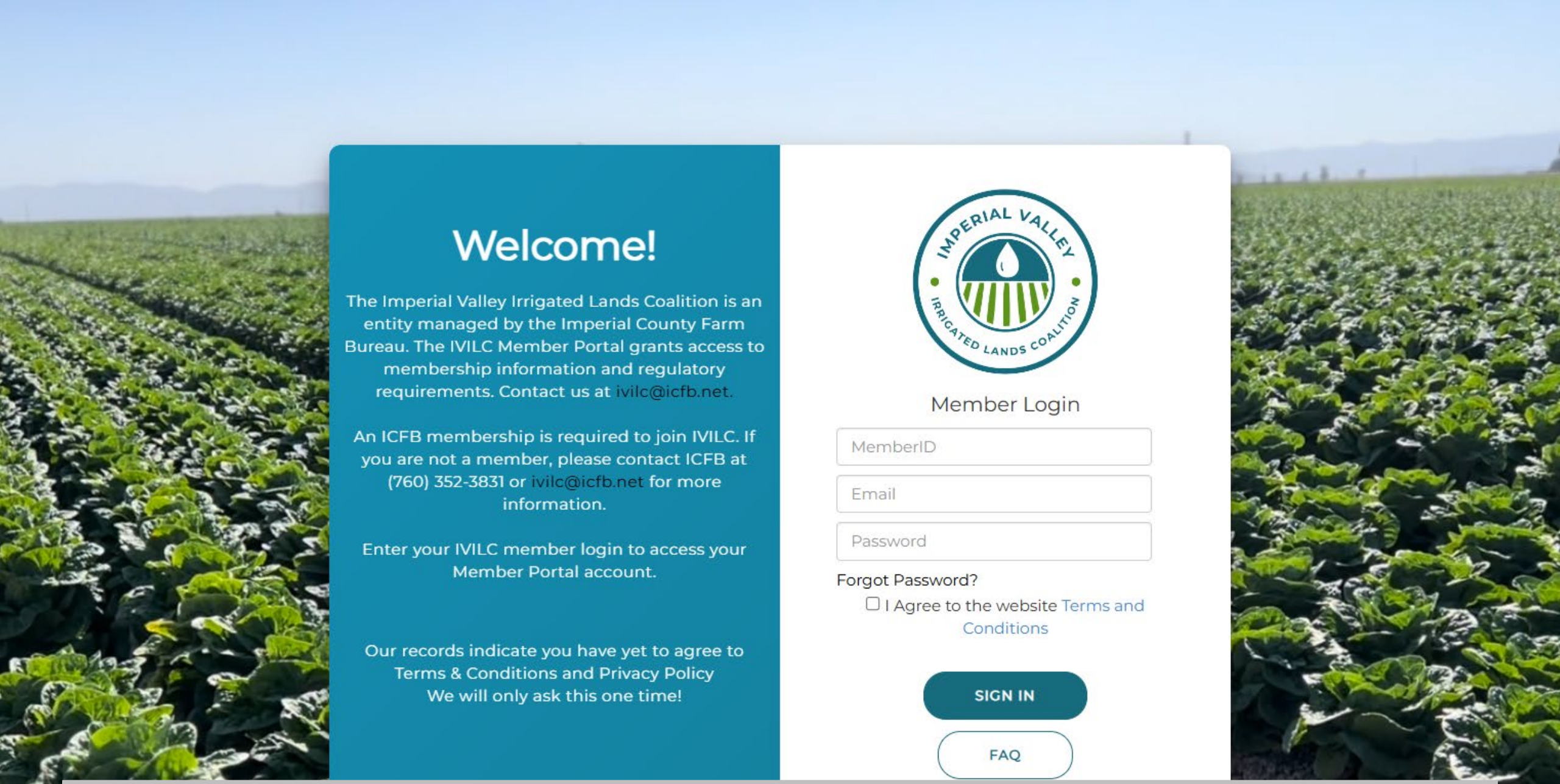
- Monitors water quality at designated sampling locations
- Facilitates billing and collection of State fees

Grower Responsibilities

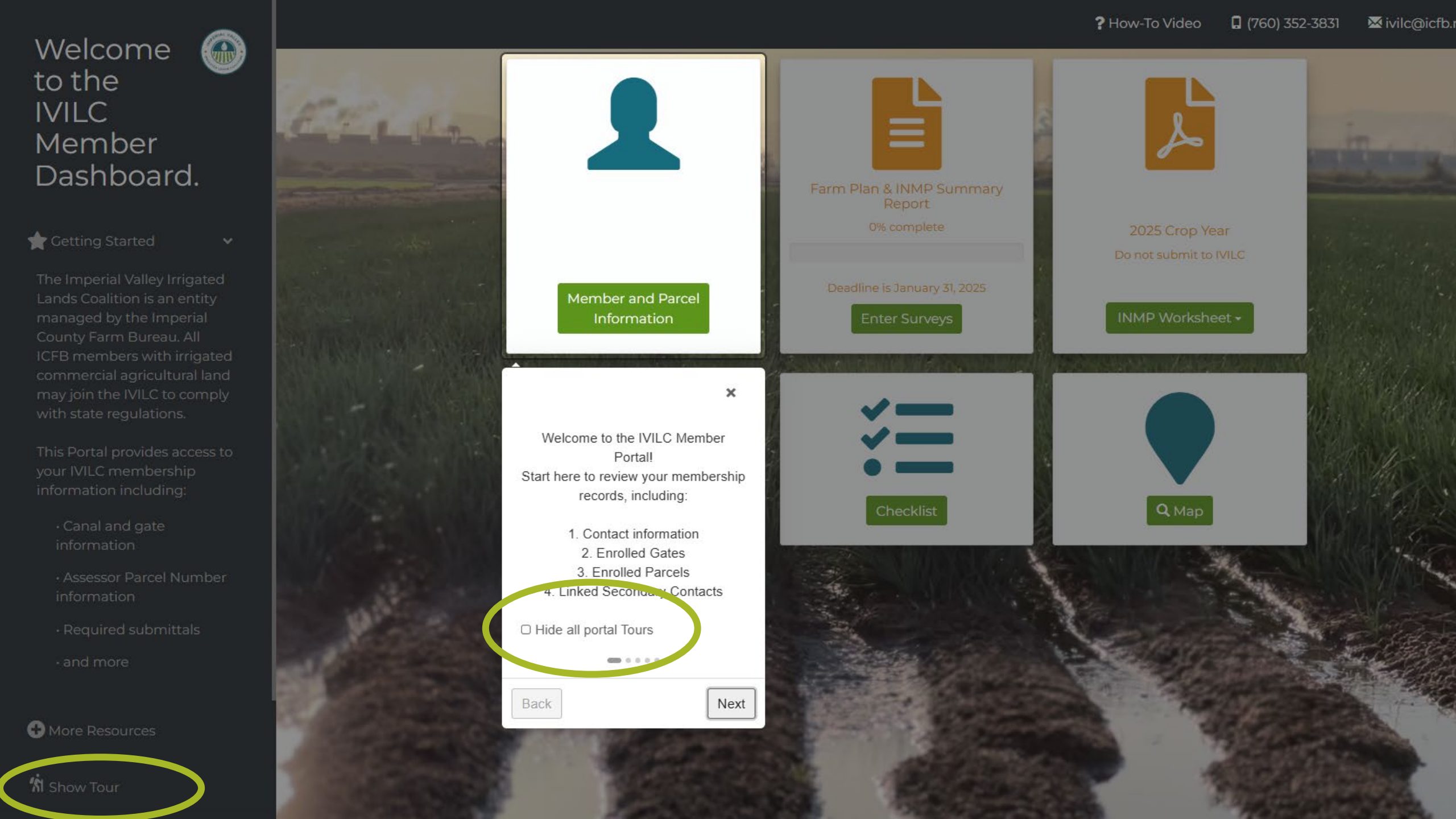
- ☑ Obtain Coverage
- ☑ Implement Management Practices
- ☑ Farm Bureau Membership
- ☑ Pay State Fee
- ☑ Prepare Plans and Reports on Practices
- ☑ **Submit YEARLY Farm Plan/Irrigation and Nitrogen Management Plan Summary Report**: Due Jan 31st!
- ☑ Complete and keep your **Irrigation and Nitrogen Management Plan Worksheet** on Farm!

IVILC MEMBER PORTAL

Updates and Walkthrough



Login Page – ivilcportal.com


How-To Video
(760) 352-3831
ivilc@icfb.
Welcome to the IVILC Member Dashboard.
Getting Started
The Imperial Valley Irrigated Lands Coalition is an entity managed by the Imperial County Farm Bureau. All ICFB members with irrigated commercial agricultural land may join the IVILC to comply with state regulations.
This Portal provides access to your IVILC membership information including:
· Canal and gate information
· Assessor Parcel Number information
· Required submittals
· and more
More Resources
Show Tour
Member and Parcel Information
Farm Plan & INMP Summary Report
0% complete
Deadline is January 31, 2025
Enter Surveys
2025 Crop Year
Do not submit to IVILC
INMP Worksheet
Checklist
Map
Welcome to the IVILC Member Portal!
Start here to review your membership records, including:
1. Contact information
2. Enrolled Gates
3. Enrolled Parcels
4. Linked Secondary Contacts
Hide all portal Tours
Back
Next

Document Repository

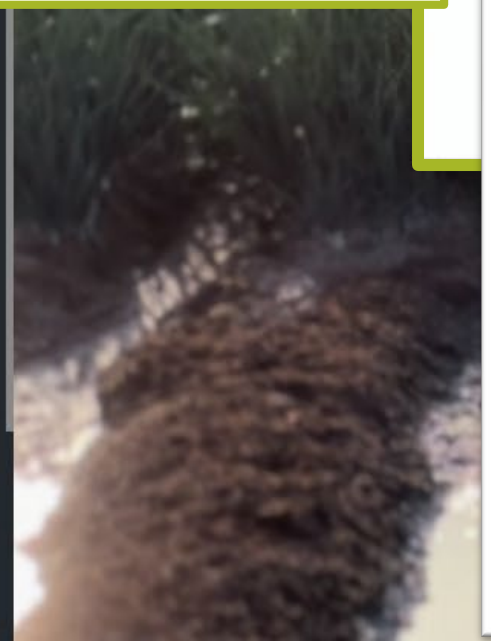
- View previously submitted surveys
- Members are required to keep survey records as hard copies or electronic copies for 10 years.

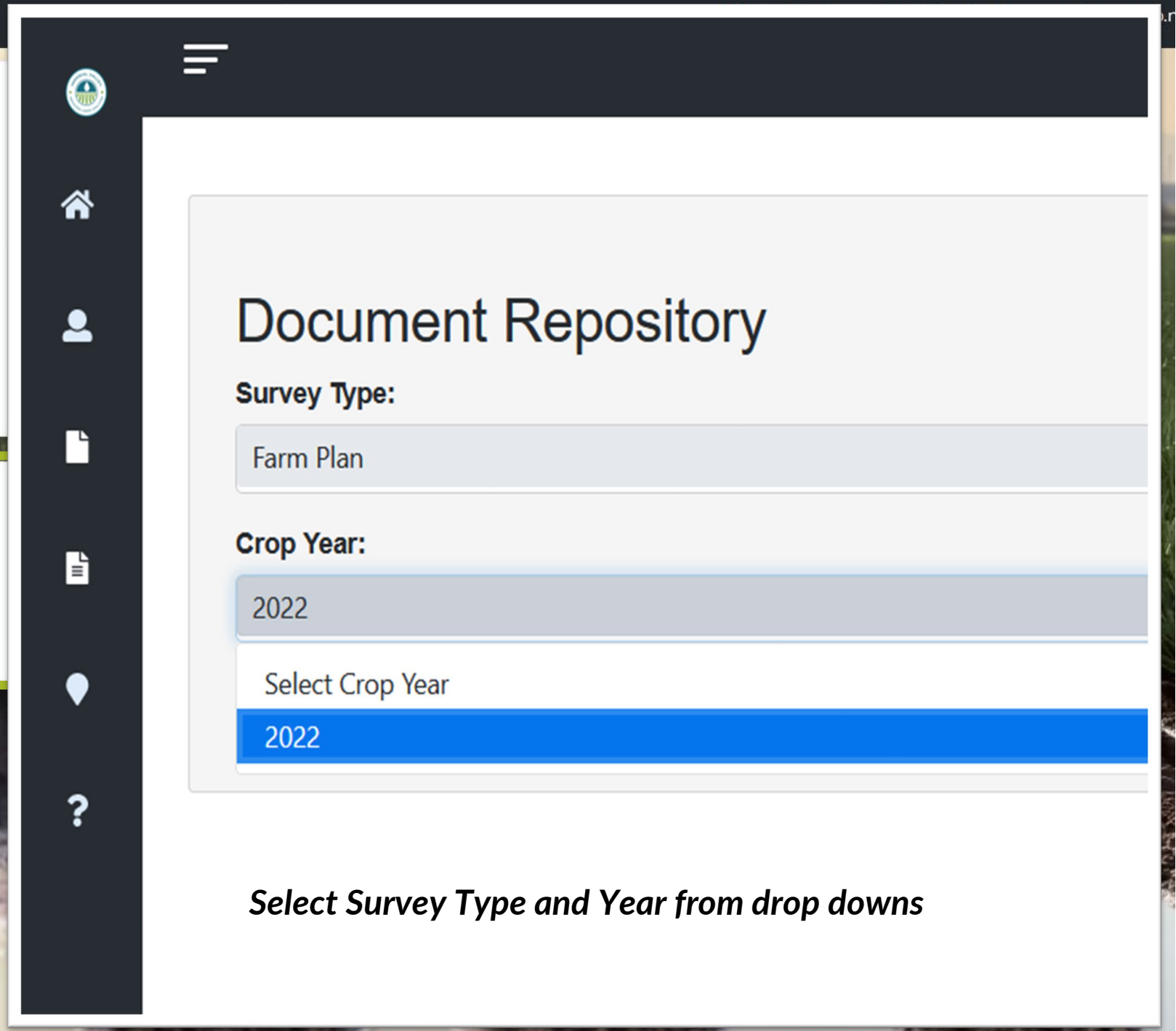
your IVILC membership information including:

- Canal and gate information
- Assessor Parcel Number information
- Required submittals
- and more

More Resources

Show Tour





Select Survey Type and Year from drop downs

Checklist

- Review status of current membership requirements

with state regulations.

This Portal provides access to your IVILC membership information including:

- Canal and gate information
- Assessor Parcel Number information
- Required submittals
- and more

More Resources

Show Tour

1 / 1

2024 Member Requirements Checklist

IVILC ID # 1 Test Member1

Total Canals/Gates Enrolled: 2

Total Acres Enrolled: 76.00

[X] **Participation Agreement**

[ ] **Farm Plan Survey**

Incomplete

Your Farm Plan Survey must be completed online by 1/31/2024. This survey is required annually.

[ ] **Irrigation and Nitrogen Management Plan (INMP) Summary Report**

Your Irrigation and Nitrogen Management Plan (INMP) Summary Report must be completed online by 1/31/2024. This report is required annually.

INMP Worksheet

- PDF of the INMP pre-season planning worksheet
- Required to be filled out by March 1
- Plan for upcoming growing season
- Kept on farm

IVILC IRRIGATION AND NITROGEN MANAGEMENT PLAN (INMP) WORKSHEET

IVILC IRRIGATION AND NITROGEN MANAGEMENT PLAN (INMP) WORKSHEET

Member ID: _____ INMP Field or MU: _____ Crop: _____ Total Acres: _____

IRRIGATION MANAGEMENT

1. Irrigation Method* (check one for Primary; if applicable, check one for Secondary)			Pre-Season Planning	
Primary	Secondary[1]		2. Crop Evapotranspiration (ET, inches)	
☐	☐	Drip		
☐	☐	Micro Sprinkler	3. Anticipated Crop Irrigation (inches)	
☐	☐	Furrow		
☐	☐	Sprinkler		
☐	☐	Border Strip	4. Irrigation Water N Concentration (ppm or mg/L, as NO_3-N)	
☐	☐	Flood		

5. Irrigation Efficiency Practices* (Check all that apply)

☐ Cascade irrigation	☐ Land leveling
☐ Irrigation water management	☐ Level basin irrigation
☐ Concrete lined ditches	☐ Pump back system (permanent)
☐ Deficit irrigation	☐ Pump back system (temporary)
☐ Gated pipe irrigation	☐ Other

HARVEST / YIELD INFORMATION

Harvest / Yield Information			Expected (A)	Actual (B)
6. Production Unit (lbs, tons, etc.)		7. Harvested Yield*		

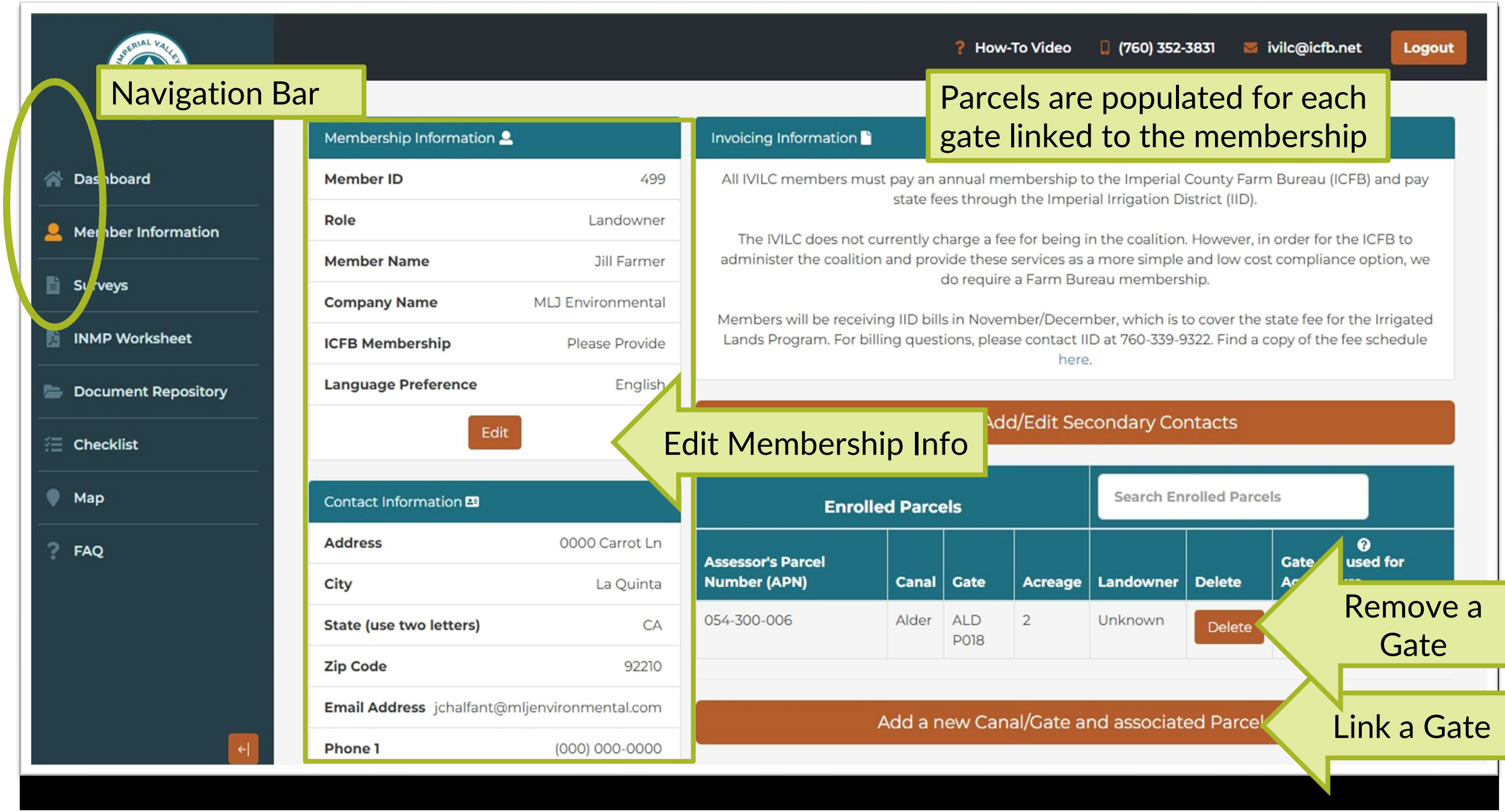
NITROGEN MANAGEMENT

8. Nitrogen Efficiency Practices* (Check all that apply)	Nitrogen Sources	Recommended/ Planned N (A)	Actual N (B)
☐ Split Fertilizer Applications	9. Soil – Available N in Root Zone (Annualized, lbs/ac)		
☐ Irrigation Water N Testing	10. N in Irrigation Water* (Annualized, lbs/ac)		
☐ Soil Testing	11. Organic Amendments* (Manure/Compost/Other, lbs/ac estimate)		
☐ Tissue/Petiole Testing	12. Dry/Liquid Fertilizer N* (lbs/ac)		
☐ Fertigation	13. Foliar Fertilizer N* (lbs/ac)		
☐ Foliar N Application	14. TOTAL NITROGEN (Calculated, lbs/ac)		
☐ Cover Crops			
☐ Variable Rate Applications using GPS			
☐ Other: _____			
☐ Other: _____			

- Canal and gate information
- Assessor Parcel Number information
- Required submittals
- and more

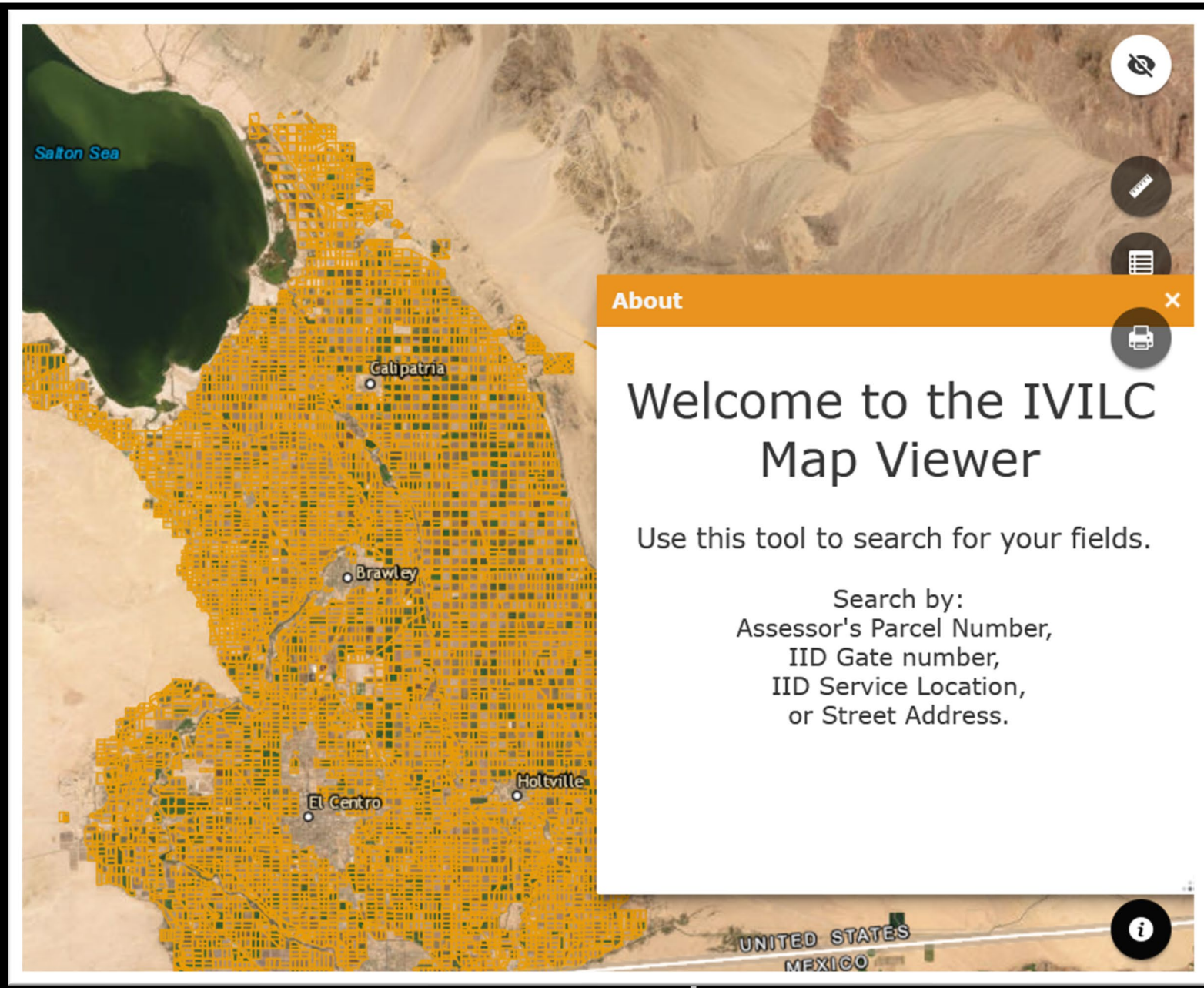
More Resources

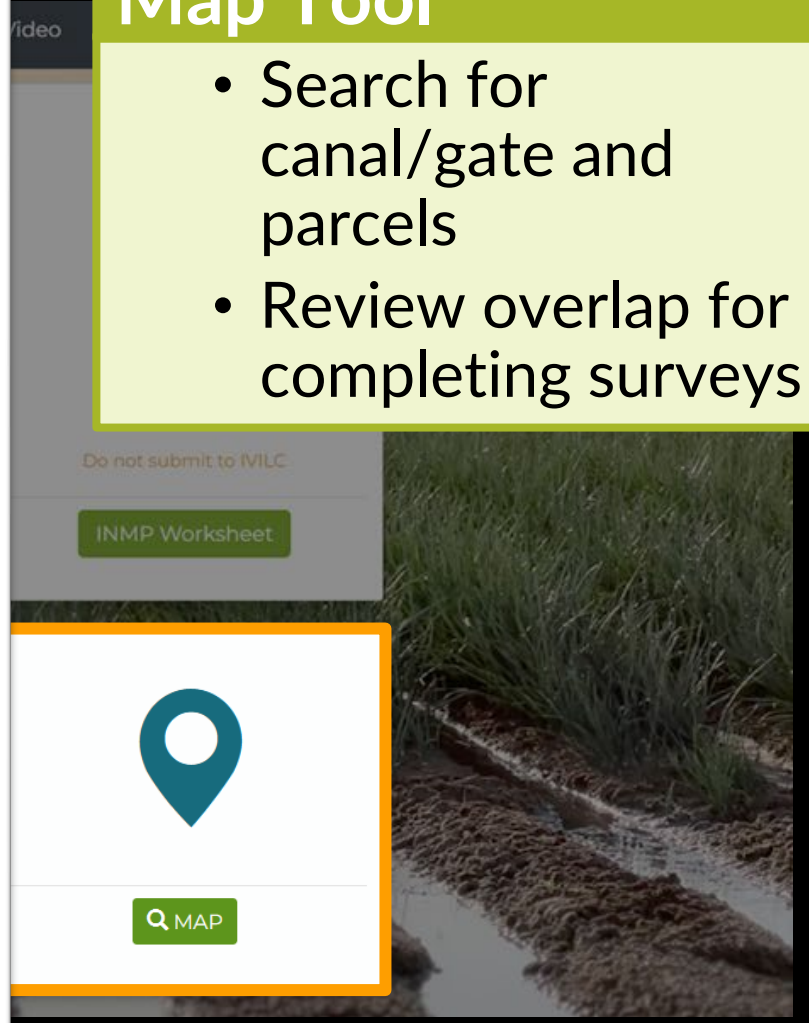
Show Tour


Navigation Bar
How-To Video
(760) 352-3831
ivilc@icfb.net
Logout
Dashboard
Member Information
Surveys
INMP Worksheet
Document Repository
Checklist
Map
FAQ
Membership Information
Member ID 499
Role Landowner
Member Name Jill Farmer
Company Name MLJ Environmental
ICFB Membership Please Provide
Language Preference English
Edit
Contact Information
Address 0000 Carrot Ln
City La Quinta
State (use two letters) CA
Zip Code 92210
Email Address jchalfant@mljenvironmental.com
Phone 1 (000) 000-0000
Edit Membership Info
Invoicing Information
All IVILC members must pay an annual membership to the Imperial County Farm Bureau (ICFB) and pay state fees through the Imperial Irrigation District (IID).
The IVILC does not currently charge a fee for being in the coalition. However, in order for the ICFB to administer the coalition and provide these services as a more simple and low cost compliance option, we do require a Farm Bureau membership.
Members will be receiving IID bills in November/December, which is to cover the state fee for the Irrigated Lands Program. For billing questions, please contact IID at 760-339-9322. Find a copy of the fee schedule here.
Add/Edit Secondary Contacts
Parcels are populated for each gate linked to the membership
Enrolled Parcels
Search Enrolled Parcels
Assessor's Parcel Number (APN)
Canal
Gate
Acreage
Landowner
Delete
Gate
used for
054-300-006
Alder
ALD P018
2
Unknown
Delete
Remove a Gate
Add a new Canal/Gate and associated Parcel
Link a Gate

Map Tool

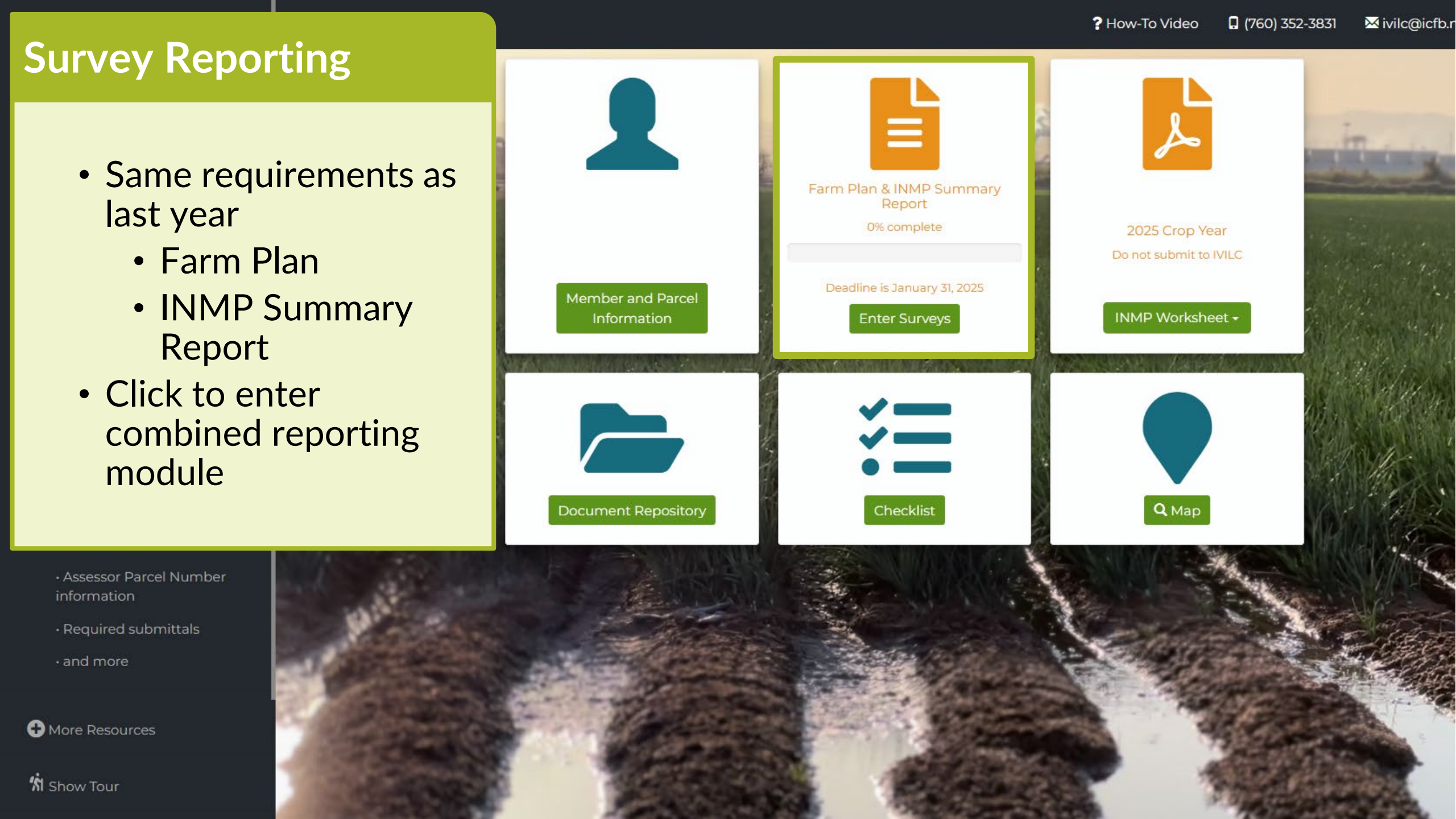
- Search for canal/gate and parcels
- Review overlap for completing surveys





Survey Reporting

- Same requirements as last year
  - Farm Plan
  - INMP Summary Report
- Click to enter combined reporting module



SURVEY ENTRY

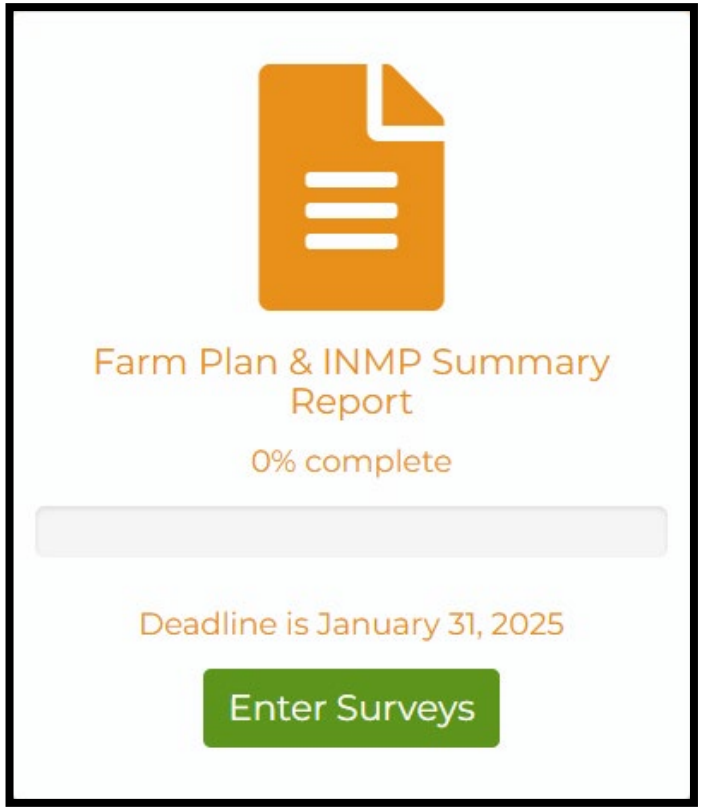
INMP Summary Report and Farm Plan: Combined Reporting

To maximize your time, we simplified the survey forms in two ways:

- Both surveys are combined to avoid duplication.
- Information required on both surveys will only need to be entered once.
- Whenever possible, field details and responses from last year's survey are pre-filled.

Farm Plan

INMP Summary Report



Are you ready?

In order to complete this survey, have this information handy for crops harvested in 2024:

1. Field Information
   (canal/gate, acreage)
2. Crops
3. Nitrogen Applications
4. Yield

Restart Tour | Print Blank Surveys

2024 INMP Summary Report and Farm Plan

both the Farm Plan (FP) and the Irrigation and Nitrogen Management Plan (INMP) Summary Report are required annually.

dule guides you through **both** surveys to reduce redundancy and maximize your time.

Welcome to the combined INMP Summary Report and Farm Plan survey. These surveys are required every year and cover farming practices for the previous crop year.

☐ Hide all portal tours

Back | Next

Management Unit Assignment

Summary Report and FP require information be submitted per parcel.

A tour will highlight elements of each entry step.

1

Populate your mem… enrolled parcels

below using the "Add all par… When possible, your Manag… information from the prior s… populated below for added efficiency.

2

…nformation for …

…eage, and …cription. Group …ng out all required fields and assigning a Management Unit Description.

3

Consider yield when assigning your Management Units.

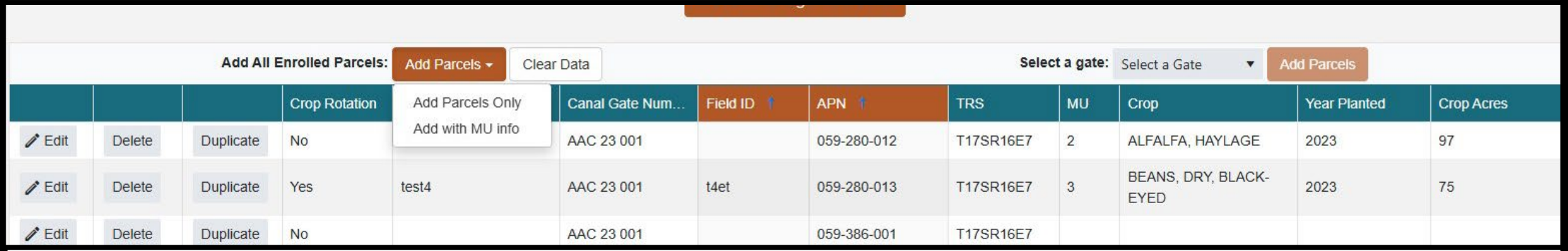
Fields with the different nitrogen and yield application rates should be split into different MUs using Management Unit Description.

It is recommended not to lump low yield and high yield fields into one MU.

What is a Management Unit?

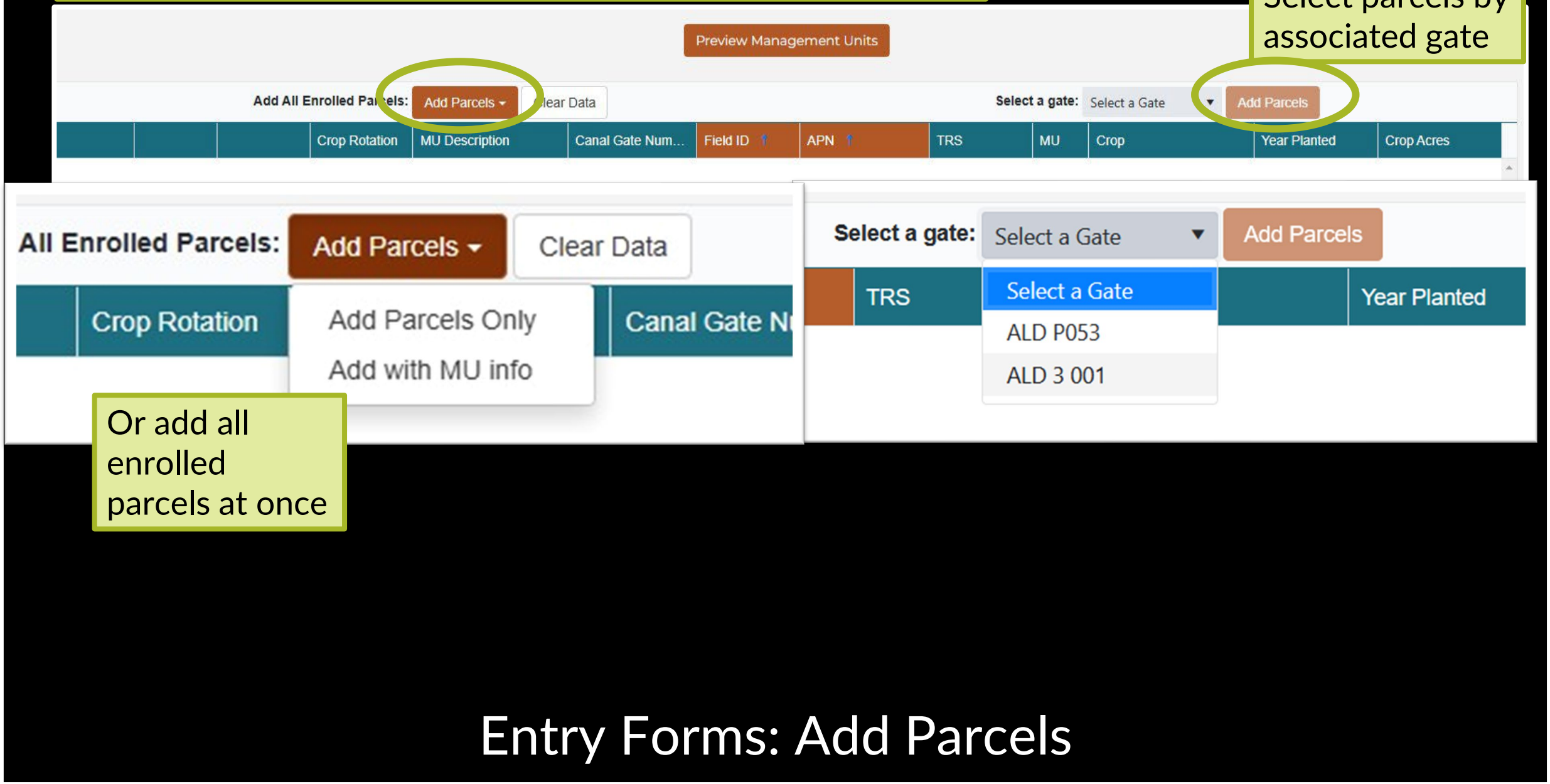
Crop Rotation

Step 1: Review and Edit the Prefilled Information for Each Parcel



Parcels are prefilled– review for any changes.

Add parcels from your membership records – 2 options:

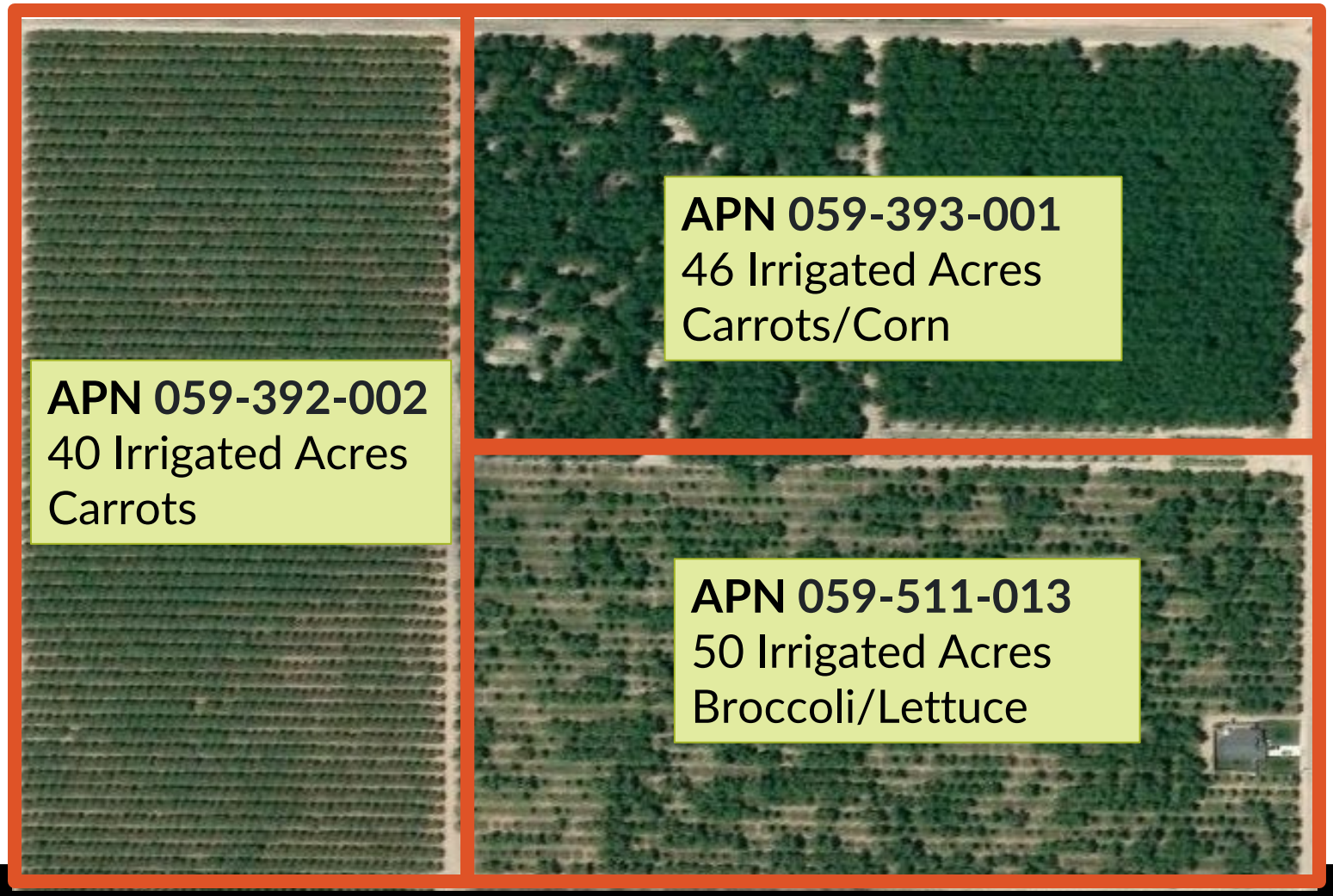


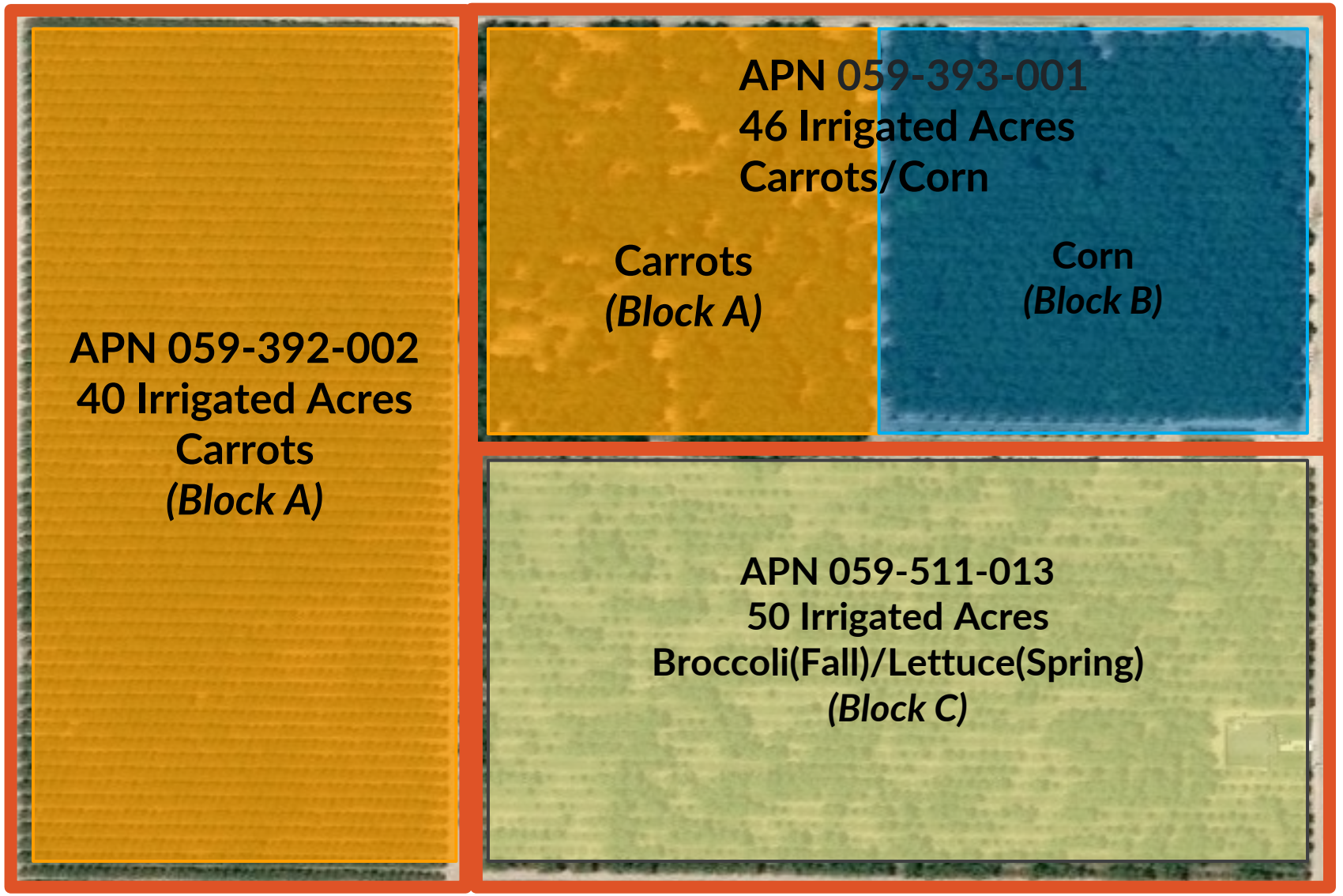
Select parcels by associated gate

Or add all enrolled parcels at once

Entry Forms: Add Parcels

APN	Irrigated Acreage	Crop
059-392-002	40	Carrots
059-393-001	46	Carrots/Corn
059-511-013	50	Broccoli/Lettuce




APN 059-392-002
40 Irrigated Acres
Carrots
(Block A)
APN 059-393-001
46 Irrigated Acres
Carrots/Corn
Carrots
(Block A)
Corn
(Block B)
APN 059-511-013
50 Irrigated Acres
Broccoli(Fall)/Lettuce(Spring)
(Block C)

Pre-populated parcels

Add All Enrolled Parcels: Add Parcels | Clear Data Select a gate: Select a Gate | Add Parcels

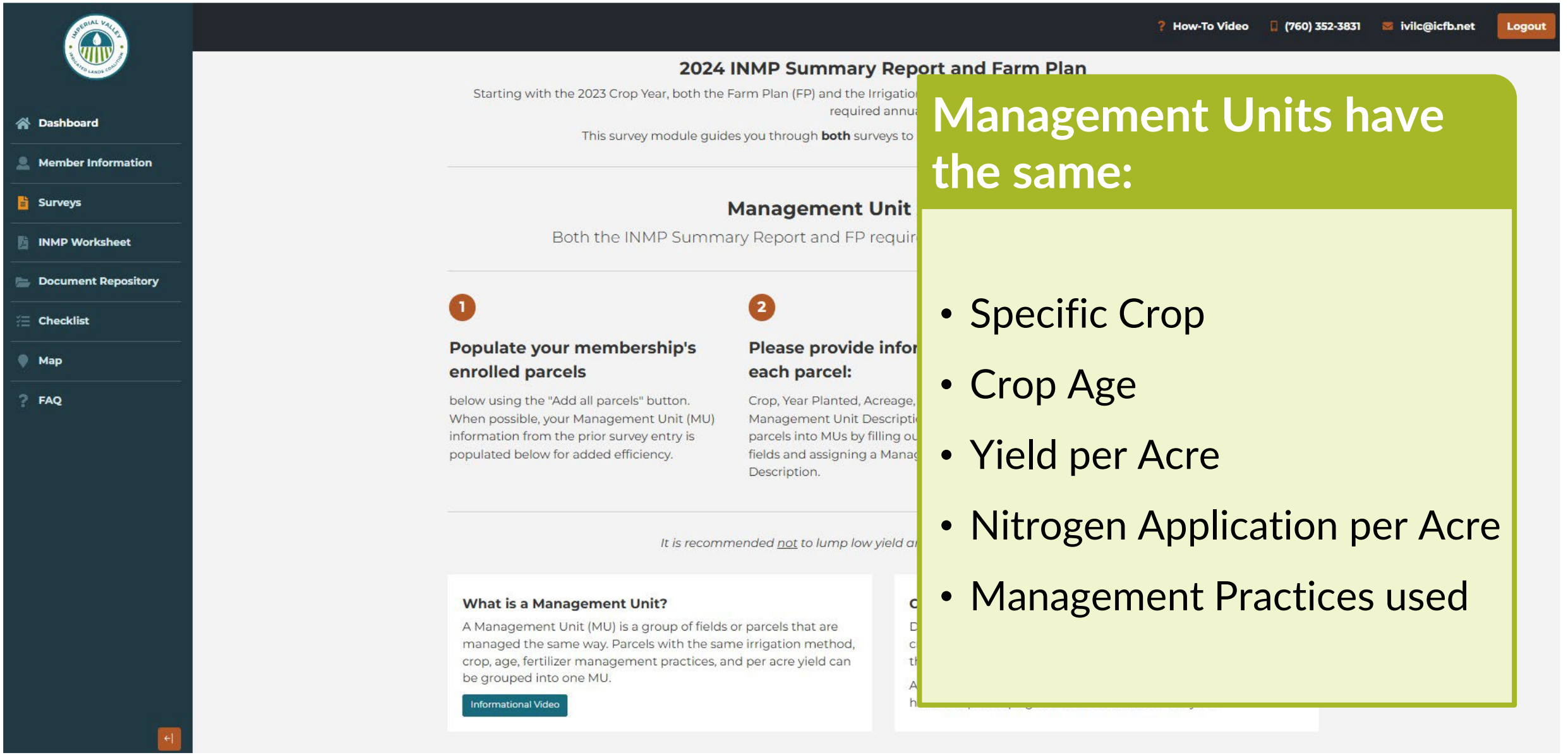
			Crop Rotat...	MU Description	Canal Gate Nu...	Field ID	APN	TRS	MU	Crop	Year Planted	Crop Acres
Edit	Delete	Duplicate	No	Block A	AAC 23 001		059-392-002	T17SR16E7	1	CARROT	2024	40
Edit	Delete	Duplicate	No	Block B	AAC 23 001		059-393-001	T17SR16E7	2	CORN, SWEET	2024	23

Updated 3 records

Updated parcels

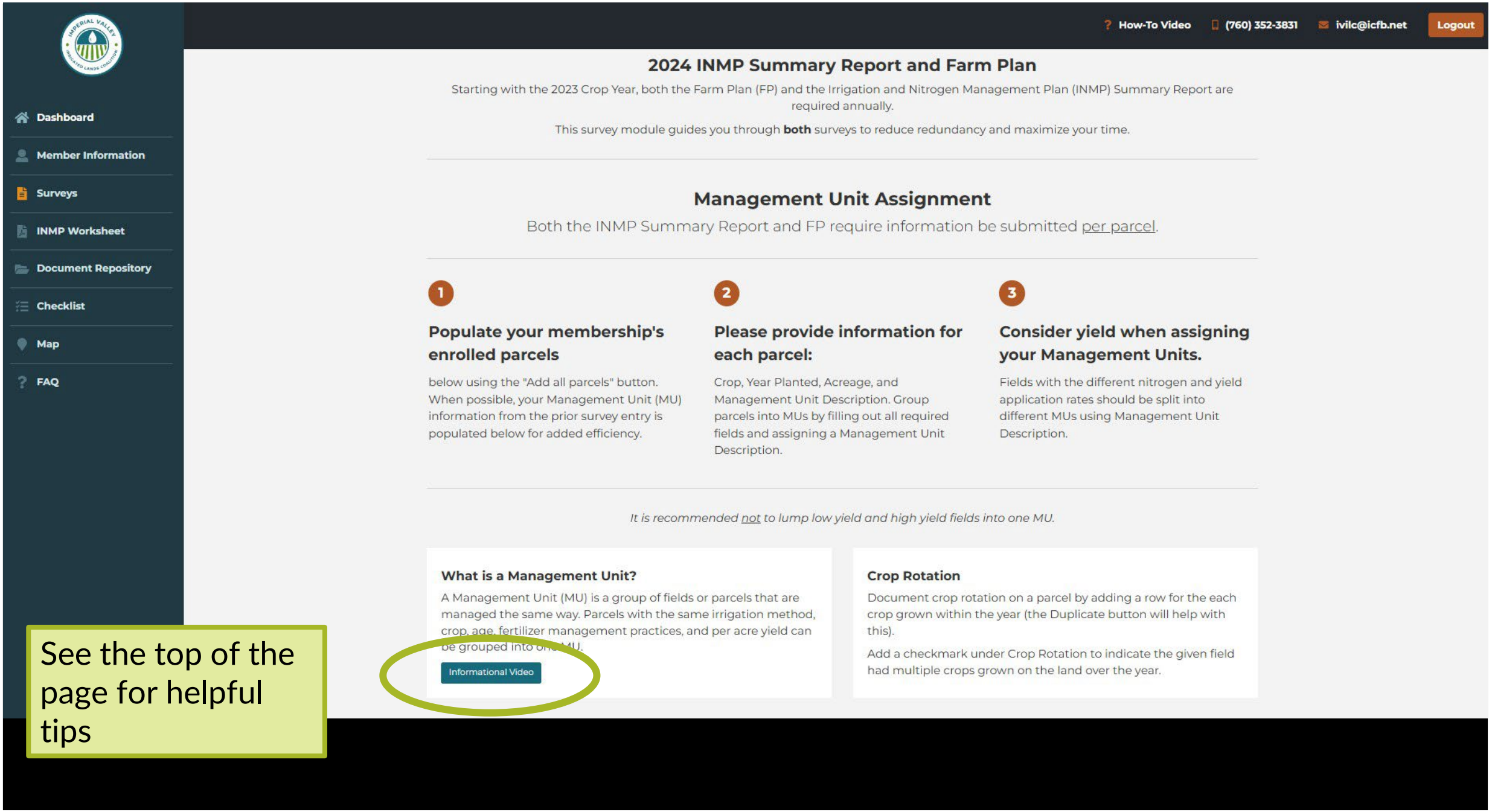
Add All Enrolled Parcels: Add Parcels | Clear Data Select a gate: Select a Gate | Add Parcels

			Crop Rotation	MU Description	Canal Gate Numbers	Field ID	APN	TRS	MU	Crop	Year Planted	Crop Acres
Edit	Delete	Duplicate	No	Block A	AAC 23 001		059-392-002	T17SR16E7	5	CARROT	2024	40
Edit	Delete	Duplicate	No	Block A	AAC 23 001		059-393-001	T17SR16E7	5	CARROT	2024	23
Edit	Delete	Duplicate	No	Block B	AAC 23 001		059-393-001	T17SR16E7	7	CORN, SWEET	2024	23
Update / Cancel	Delete	Duplicate	☑	Block C	AAC 23 001		059-511-013	T17SR16E7	9	LETTUCE	2024	50
Edit	Delete	Duplicate	Yes	Block C	AAC 23 001		059-511-013	T17SR16E7	8	BROCCOLI	2024	50



Management Units have the same:

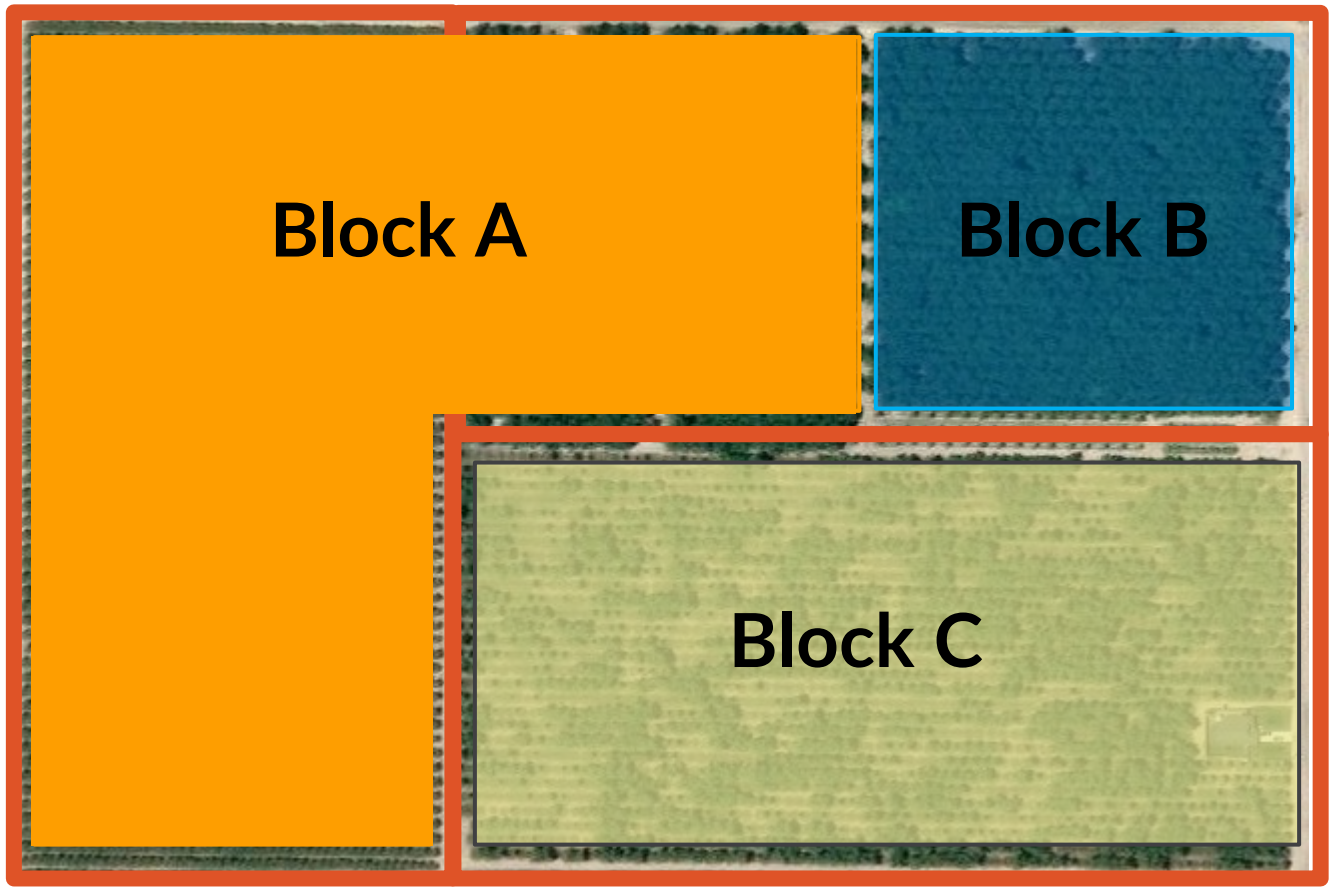
- Specific Crop
- Crop Age
- Yield per Acre
- Nitrogen Application per Acre
- Management Practices used



See the top of the page for helpful tips

APN 059-393-001
46 Irrigated Acres
Carrots/Corn
(Block A and Block B)

APN 059-392-002
40 Irrigated Acres
Carrots
(Block A)



APN 059-511-013
50 Irrigated Acres
Broccoli/Lettuce
(Block C)

1. Enter crop, year planted, and MU description.
2. Parcels with the same crop, age, and MU description will automatically fall into a single Management Unit bucket.

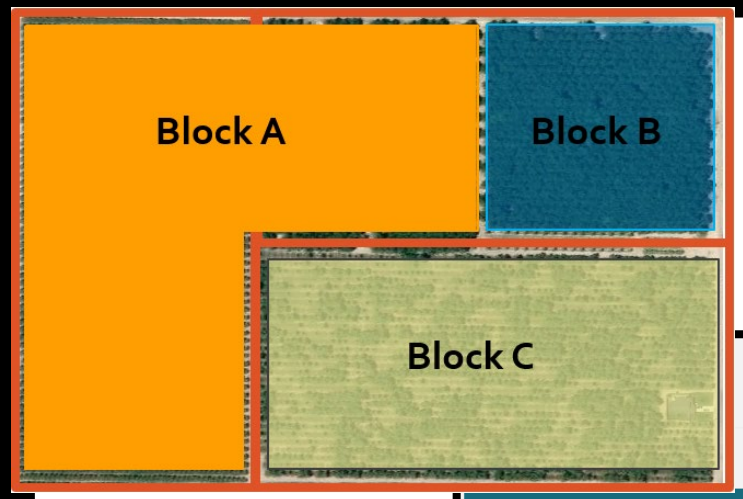
Preview Management Units

(Unassigned parcels)	Block A (5, CARROT, Age: < 1, 63 acres)	Block B (7, CORN, SWEET, Age: < 1, 23 acres)	Block C (8, BROCCOLI, Age: < 1, 50 acres)	Block C (9, LETTUCE, Age: < 1, 50 acres)
	059-392-002, Field: null	059-393-001, Field: null	059-511-013, Field: null	059-511-013, Field: null
	059-393-001, Field: null			

Add All Enrolled Parcels: Add Parcels | Clear Data

Select a gate: Select a Gate | Add Parcels

			Crop Rotation	MU Description	Canal Gate Numbers	Field ID	APN	TRS	MU	Crop	Year Planted	Crop Acres
Edit	Delete	Duplicate	No	Block A	AAC 23 001		059-392-002	T17SR16E7	5	CARROT	2024	40
Edit	Delete	Duplicate	No	Block A	AAC 23 001		059-393-001	T17SR16E7	5	CARROT	2024	23
Edit	Delete	Duplicate	No	Block B	AAC 23 001		059-393-001	T17SR16E7	7	CORN, SWEET	2024	23
Edit	Delete	Duplicate	Yes	Block C	AAC 23 001		059-511-013	T17SR16E7	9	LETTUCE	2024	50
Edit	Delete	Duplicate	Yes	Block C	AAC 23 001		059-511-013	T17SR16E7	8	BROCCOLI	2024	50



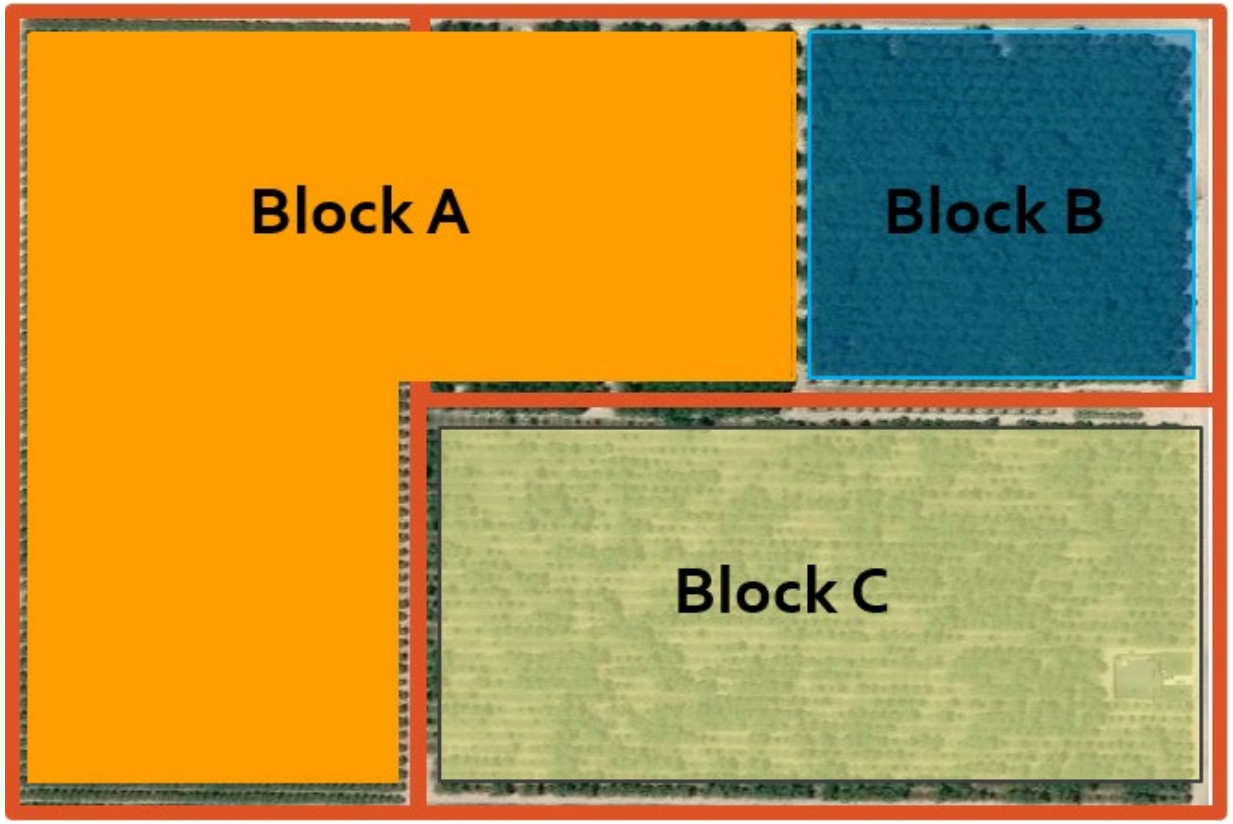
Preview Management Units

(Unassigned parcels)	Block A (1, CARROT, Age: < 1, 80 acres)	Block B (2, CORN, SWEET, Age: < 1, 23 acres)	Block C2 (5, BROCCOLI, Age: < 1, 50 acres)	Block C1 (6, LETTUCE, Age: < 1, 50 acres)
	059-392-002, Field: null	059-393-001, Field: null	059-511-013, Field: null	059-511-013, Field: null
	059-393-001, Field: null			

Add All Enrolled Parcels: Add Parcels | Clear Data

Select a gate: Select a Gate | Add Parcels

			Crop Rotat...	MU Description	Canal Gate Nu...	Field ID	APN	TRS	MU	Crop	Year Planted	Crop Acres
Edit	Delete	Duplicate	No	Block A	AAC 23 001		059-392-002	T17SR16E7	1	CARROT	2024	40
Edit	Delete	Duplicate	No	Block A	AAC 23 001		059-393-001	T17SR16E7	1	CARROT	2024	40
Edit	Delete	Duplicate	No	Block B	AAC 23 001		059-393-001	T17SR16E7	2	CORN, SWEET	2024	23
Edit	Delete	Duplicate	Yes	Block C	AAC 23 001		059-511-013	T17SR15E13	6	LETTUCE	2024	50
Edit	Delete	Duplicate	Yes	Block C	AAC 23 001		059-511-013	T17SR15E13	5	BROCCOLI	2024	50

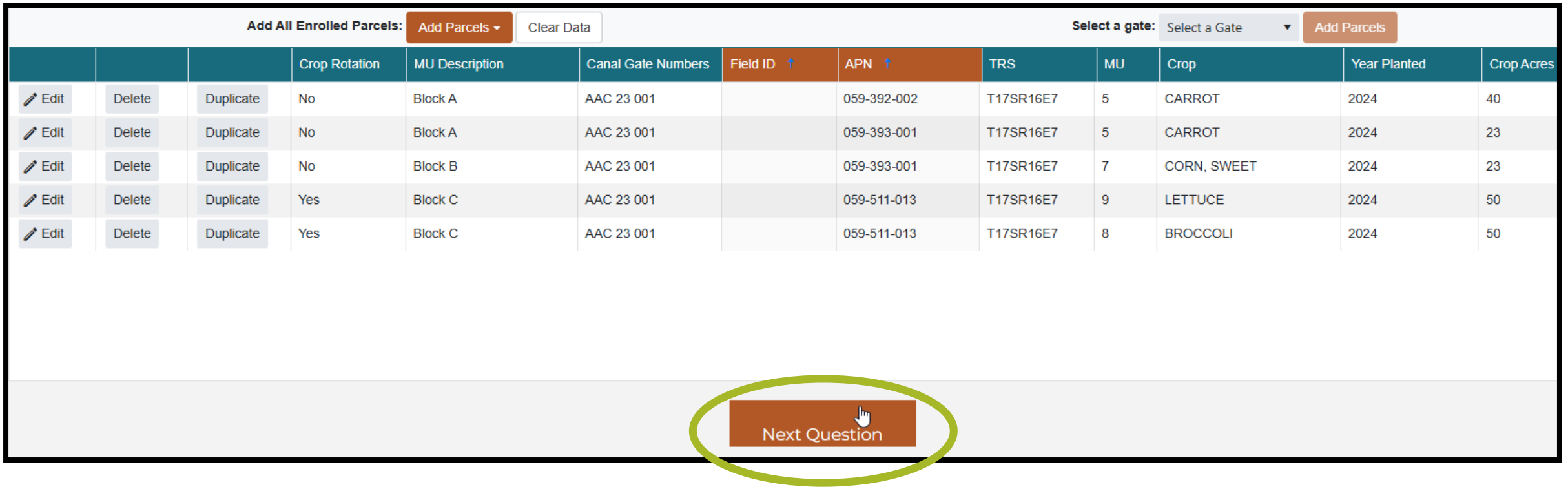


The following must be the **SAME** to be reported as a Management Unit:

- Management practices
- Nitrogen applications
- Crop
- Crop Age
- Approximate yield

One Management Unit means you enter the survey responses ONCE for ALL parcels in that unit.

Finalize Parcels and Management Units



			Crop Rotation	MU Description	Canal Gate Numbers	Field ID	APN	TRS	MU	Crop	Year Planted	Crop Acres
Edit	Delete	Duplicate	No	Block A	AAC 23 001		059-392-002	T17SR16E7	5	CARROT	2024	40
Edit	Delete	Duplicate	No	Block A	AAC 23 001		059-393-001	T17SR16E7	5	CARROT	2024	23
Edit	Delete	Duplicate	No	Block B	AAC 23 001		059-393-001	T17SR16E7	7	CORN, SWEET	2024	23
Edit	Delete	Duplicate	Yes	Block C	AAC 23 001		059-511-013	T17SR16E7	9	LETTUCE	2024	50
Edit	Delete	Duplicate	Yes	Block C	AAC 23 001		059-511-013	T17SR16E7	8	BROCCOLI	2024	50

Step 3: Entry Forms - Nitrogen and Yield Information

Back | Restart Tour

Survey Completeness: 0 / 16

ummary Report and Farm Plan

en and Yield Information

ation and yield information below per management unit

- Return to prior page to refine MU groupings
- MUs are locked after this step to prevent data mismatch issues.

						Yield			Additional Information
Description Number	**Acres** Crop	**N in Irrigation Water** (lbs/acre)	**Organic Amendments** (lbs/acre)	**Dry/Liquid Fertilizers** (lbs/acre)	**Foliar Fertilizers** (lbs/acre)	**Harvested Yield** (Per Acre)	**Production Unit**	**Yield Information**	**Comments**
Block A 1	**63** CARROT								
Block B 2	**23** CORN, SWEET								
Block C2 5	**50** BROCCOLI								
Block C1 6	**50** LETTUCE								

Save Progress

Next

Built in Controls

- Progress saved through automatic and manual saving features
- Alerts for missing info

Nitrogen in Irrigation Water

Step 1 Management Unit(s)		Nitrogen Sources				Yield			Additional Information
Description Number	Acres Crop	N in Irrigation Water (lbs/acre)	Organic Amendments (lbs/acre)	Dry/Liquid Fertilizers (lbs/acre)	Foliar Fertilizers (lbs/acre)	Harvested Yield (Per Acre)	Production Unit	Yield Information	Comments
Block A 1	**63** CARROT						Pounds	None	Comments
Block B 2	**23** CORN, SWEET						Pounds	None	Comments
Block C2 5	**50** BROCCOLI								Comments
Block C1 6	**50** LETTUCE								Comments

N in Irrigation Water (lbs/acre)

Enter the amount of nitrogen applied via irrigation water over the course of the crop year in pounds per acre. This is the pounds of N in your irrigation water when delivered from IID BEFORE any N is applied on farm. To calculate N in irrigation water, use the following formula:

N concentration(ppm or mg / L) x inches of irrigation applied x 0.226

Nitrate as nitrogen is also referred to as Nitrate as N, nitrate-nitrogen, or NO3-N.

Download Nitrate Calculator

OK

Nitrogen in Irrigation Water

N in irrigation water calculator

Provides N value for INMP Summary Report

This is your final value for N in Irrigation Water

1. Input the acre feet of water applied to your management unit. This information is NOT stored or reported. Acre-ft of water applied	>	2. Input the concentration of N in your delivered irrigation water. The number below is a default if your concentration is unknown. The default value references the All American Canal. Concentration of Nitrate-N in irrigation water	>	3. Copy the value below and enter it as "N in Irrigation Water" in the INMP Summary Report. This is the pounds of N in your irrigation water when delivered from IID BEFORE any N is applied on farm. Pounds of N in irrigation water
2.09		0.78		4.4802

Nitrogen in Irrigation Water

N in irrigation water calculator

Provides N value for INMP Summary Report

This is your final value for N in Irrigation Water

1. Input the acre feet of water applied to your management unit.		2. Input the concentration of N in your delivered irrigation water.		3. Copy the value below and enter it as "N in Irrigation Water" in the INMP Summary Report.
This information is NOT stored or reported.		The number below is a default if your concentration is unknown. The default value references the All American Canal.		This is the pounds of N in your irrigation water when delivered from IID BEFORE any N is applied on farm.
Acre-ft of water applied	>	Concentration of Nitrate-N in irrigation water	>	Pounds of N in irrigation water
2.09		0.78		4.4802

Step 1 Management Unit(s)		Nitrogen Sources				Yield		
Description Number	Acres Crop	N in Irrigation Water (lbs/acre)	Organic Amendments (lbs/acre)	Dry/Liquid Fertilizers (lbs/acre)	Foliar Fertilizers (lbs/acre)	Harvested Yield (Per Acre)	Production Unit	Yield Information
Block A 1	63 CARROT	4.4802					Pounds	None
Block B 2	23 CORN, SWEET						Pounds	None
Block C 5	50 BROCCOLI						Pounds	None
Block C 6	50 LETTUCE						Pounds	None

Organic Amendments

Step 1 Management Unit(s)		Nitrogen Sources				Yield		
Description Number	Acres Crop	N in Irrigation Water (lbs/acre)	Organic Amendments (lbs/acre)	Dry/Liquid Fertilizers (lbs/acre)	Foliar Fertilizers (lbs/acre)	Harvested Yield (Per Acre)	Production Unit	Yield Information
Block A 1	**63** CARROT	4.4802	80				Pounds	None
Block B 2	**23** CORN, SWEET						Pounds	None
Block C2 5	**50** BROCCOLI						Pounds	None
Block C 6	**50** LETTUCE						Pounds	None

Organic Amendments (lbs/acre)

Enter the amount of nitrogen applied from sources that do not have a guaranteed nutrient content, such as compost and manure applications, in pounds per acre.

OK

Dry/Liquid Fertilizers

Step 1 Management Unit(s)		Nitrogen Sources				Yield			Additional Information
Description Number	Acres Crop	N in Irrigation Water (lbs/acre)	Organic Amendments (lbs/acre)	Dry/Liquid Fertilizers (lbs/acre)	Foliar Fertilizers (lbs/acre)	Harvested Yield (Per Acre)	Production Unit	Yield Information	Comments
Block A 1	**63** CARROT	4.4802	80	140.5			Pounds	None	Comments
Block B 2	**23** CORN, SWEET						Pounds	None	Comments
Block C 5	**50** BROCCOLI						Pounds	None	Comments
Block C 6	**50** LETTUCE						Pounds	None	Comments

Dry/Liquid Fertilizers (lbs/acre)

Enter the amount of Dry / Liquid Fertilizers applied throughout the crop year.Fertilizers include any nitrogen - containing product with a guaranteed nutrient content. This number should be reported as the amount of nitrogen applied as pounds per acre; this may be different than the amount of fertilizer applied which may include other nutrients.

OK

Foliar Fertilizers

Step 1 Management Unit(s)		Nitrogen Sources				Yield		
Description Number	Acres Crop	N in Irrigation Water (lbs/acre)	Organic Amendments (lbs/acre)	Dry/Liquid Fertilizers (lbs/acre)	Foliar Fertilizers (lbs/acre)	Harvested Yield (Per Acre)	Production Unit	Yield Information
Block A 1	**63** CARROT	4.4802	80	140.5	0		Pounds	None
Block B 2	**23** CORN, SWEET						Pounds	None
Block C 5	**50** BROCCOLI						Pounds	None
Block C 6	**50** LETTUCE						Pounds	None

Foliar Fertilizers (lbs/acre)

Enter the amount of foliar nitrogen applied to the crop canopy or above ground plant parts throughout the crop year, in pounds per acre.

OK

Harvested Yield

Step 1 Management Unit(s)		Nitrogen Sources				Yield			Additional Information
Description Number	Acres Crop	N in Irrigation Water (lbs/acre)	Organic Amendments (lbs/acre)	Dry/Liquid Fertilizers (lbs/acre)	Foliar Fertilizers (lbs/acre)	Harvested Yield (Per Acre)	Production Unit	Yield Information	Comments
Block A 1	**63** CARROT	4.4802	80	140.5	0	60500	Pounds	None	Comments
Block B 2	**23** CORN, SWEET						Pounds		Comments
Block C 5	**50** BROCCOLI						Pounds		Comments
Block C 6	**50** LETTUCE						Pounds		Comments

None
No Yield
Non-Bearing
No Nitrogen Applie
Not Irrigated

Yield Information Examples

- Young trees not yet producing →Select "Non-Bearing"
- Crop grown for seed → "Select seed crop"

Additional Comments:

- Palm weevil infestation
- Hurricane Hilary

Harvested Yield

Back | Restart Tour

Survey Completeness: 0 / 16

2023 INMP Summary Report and Farr

Nitrogen and Yield Information

Enter your nitrogen application and yield information below per ma

Step 1 Management Unit(s)		Nitrogen Sources							Additional Information
Description Number	Acres Crop	N in Irrigation Water (lbs/acre)	Organic Amendments (lbs/acre)	Dry/Liquid Fertilizers (lbs/acre)	Foliar Fertilizers (lbs/acre)	Harvested Yield (Per Acre)		formation	Comments
Block A 1	**63** CARROT	4.4802	80	140.5	0	60500			Comments
Block B 2	**23** CORN, SWEET	2.542	83.1	172.5	0	16645			Comments
Block C 5	**50** BROCCOLI	3.956	104.21	134.56	0	502	Carton (100 lbs)	None	Comments
Block C 6	**50** LETTUCE	3.456	87	154.56	0	20402	Pounds	None	Comments

Box (25 lbs)
Bundle (6 lbs)
Bushel (25 lbs)
Bushel (28-32 lbs)
Bushel (30 lbs)
Bushel (32 lbs)
Bushel (40 lbs)
Bushel (48 lbs)
Bushel (56 lbs)
Bushel (60 lbs)
Bushel (70 lbs)
Bushel Basket (40 lbs)
Carton (100 lbs)
Carton (13 lbs)
Carton (18 lbs)
Carton (20 lbs)
Carton (23 lbs)
Carton (25 lbs)
Carton (30 lbs)
Carton (33 lbs)

Select the unit for your reported yield from the drop down.

Remaining Crops

Back | Restart Tour

Survey Completeness: 0 / 16

2023 INMP Summary Report and Farm Plan

Nitrogen and Yield Information

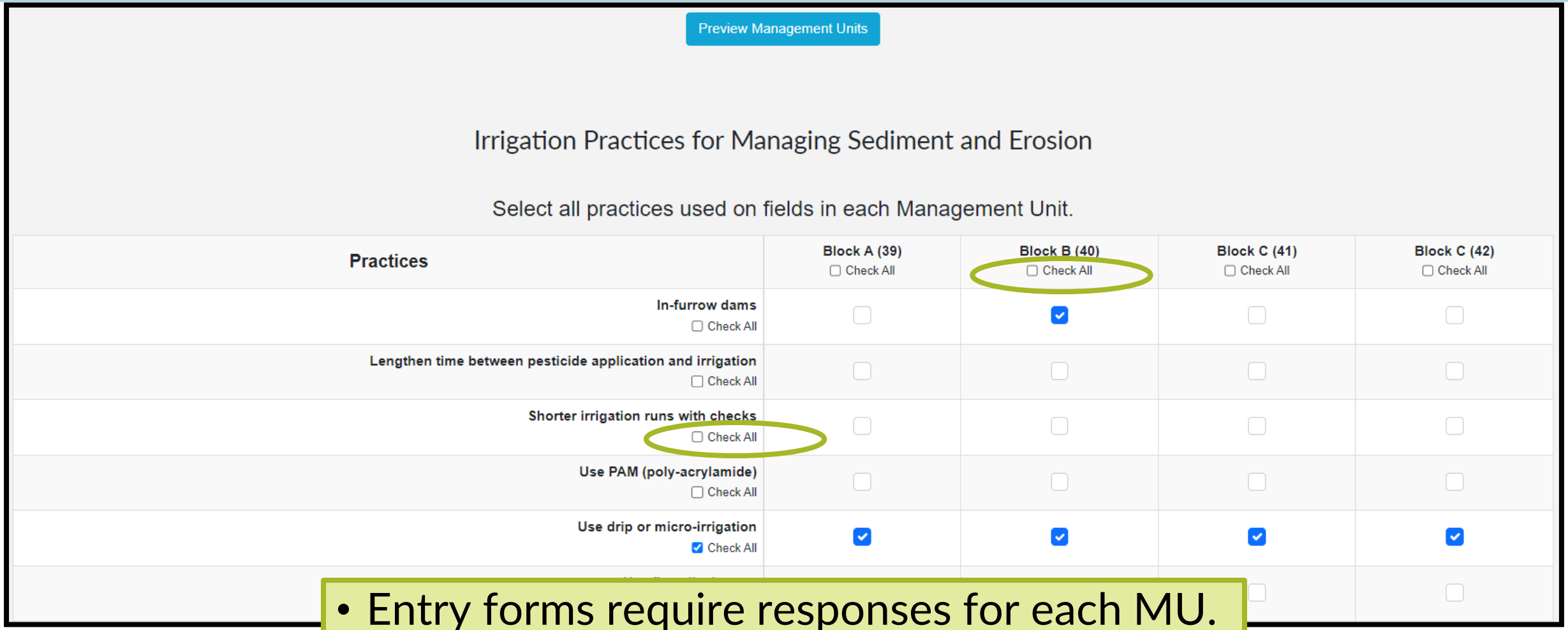
Enter your nitrogen application and yield information below per management unit

Step 1 Management Unit(s)		Nitrogen Sources				Yield			Additional Information
Description Number	Acres Crop	N in Irrigation Water (lbs/acre)	Organic Amendments (lbs/acre)	Dry/Liquid Fertilizers (lbs/acre)	Foliar Fertilizers (lbs/acre)	Harvested Yield (Per Acre)	Production Unit	Yield Information	Comments
Block A 1	**63** CARROT	4.4802	80	140.5	0	60500	Pounds	None	Comments
Block B 2	**23** CORN, SWEET	2.542	83.1	172.5	0	16645	Pounds	None	Comments
Block C 5	**50** BROCCOLI	3.956	104.21	134.56	0	502	Carton (100 lbs)	None	Comments
Block C 6	**50** LETTUCE	3.456	87	154.56	0	20402	Pounds	None	Comments

Save Progress

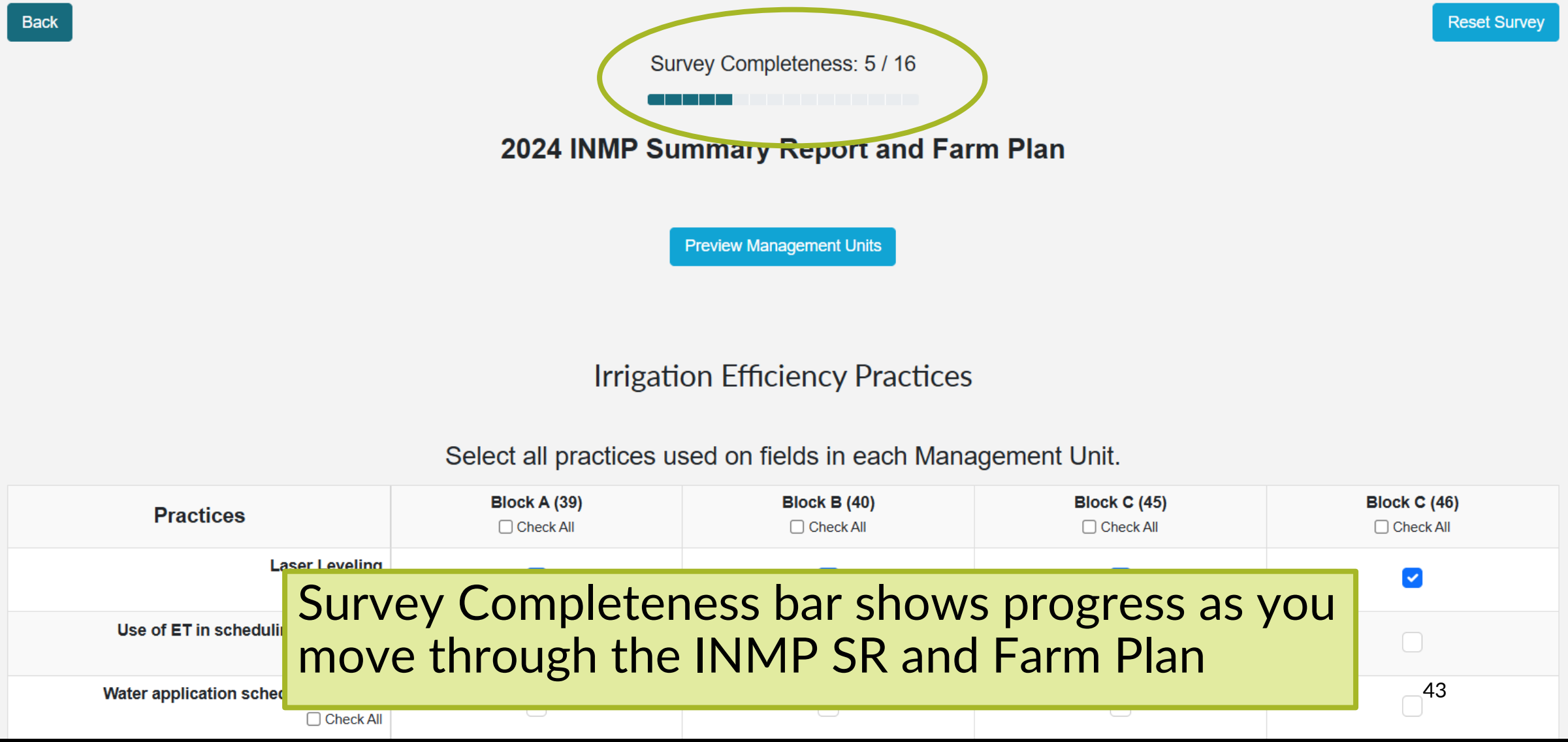
Next

Entry Forms



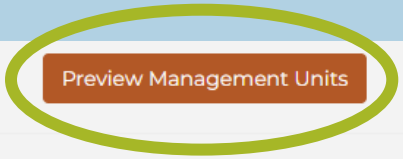
- Entry forms require responses for each MU.
- “Check all” features streamline entry.

Entry Forms



Survey Completeness bar shows progress as you move through the INMP SR and Farm Plan

Entry Forms



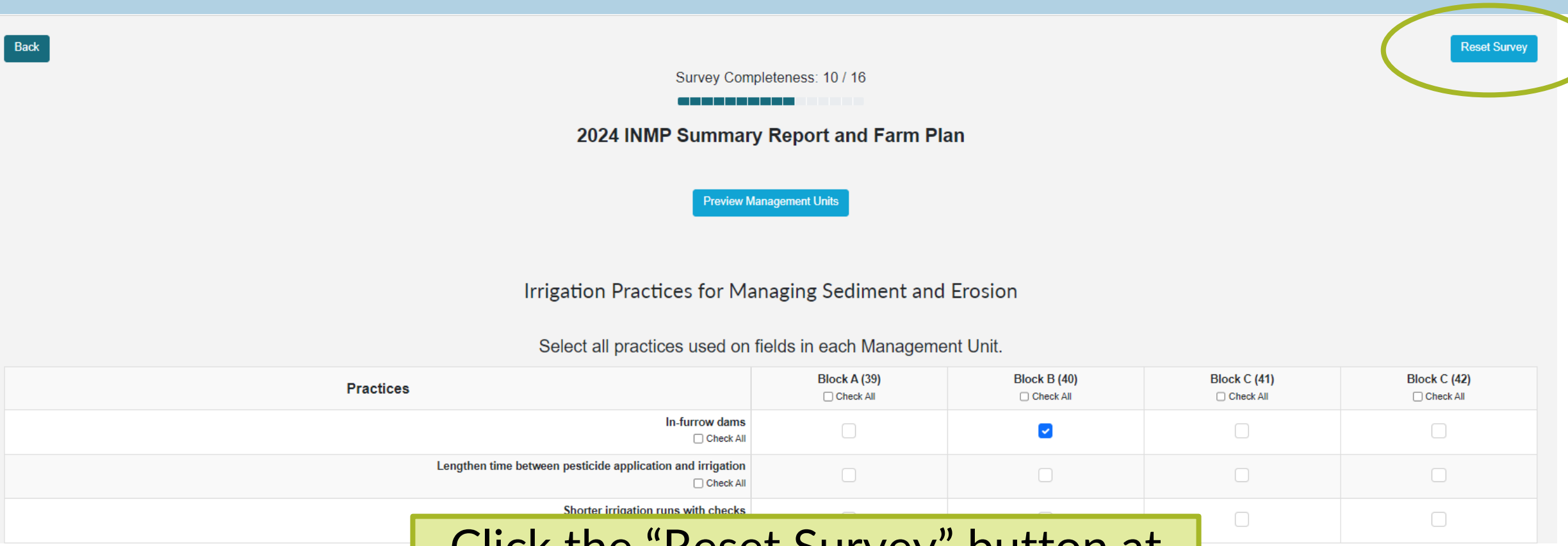
(Unassigned parcels)	Block A (5, CARROT, Age: < 1, 63 acres)	Block B (7, CORN, SWEET, Age: < 1, 23 acres)	Block C (8, BROCCOLI, Age: < 1, 50 acres)	Block C (9, LETTUCE, Age: < 1, 50 acres)
	059-392-002, Field: null	059-393-001, Field: null	059-511-013, Field: null	059-511-013, Field: null
	059-393-001, Field: null			

Primary Irrigation Method

MU	Drip Check All	Sprinkler Check All	Border Strip Check All
Block A (5)			
Block B (7)			
Block C (8)			
Block C (9)			

Click the “Preview Management Units” button at any time to see the details of each Management Unit.

Entry Forms



Click the “Reset Survey” button at any time to go back to the parcel and Management Unit assignment page.

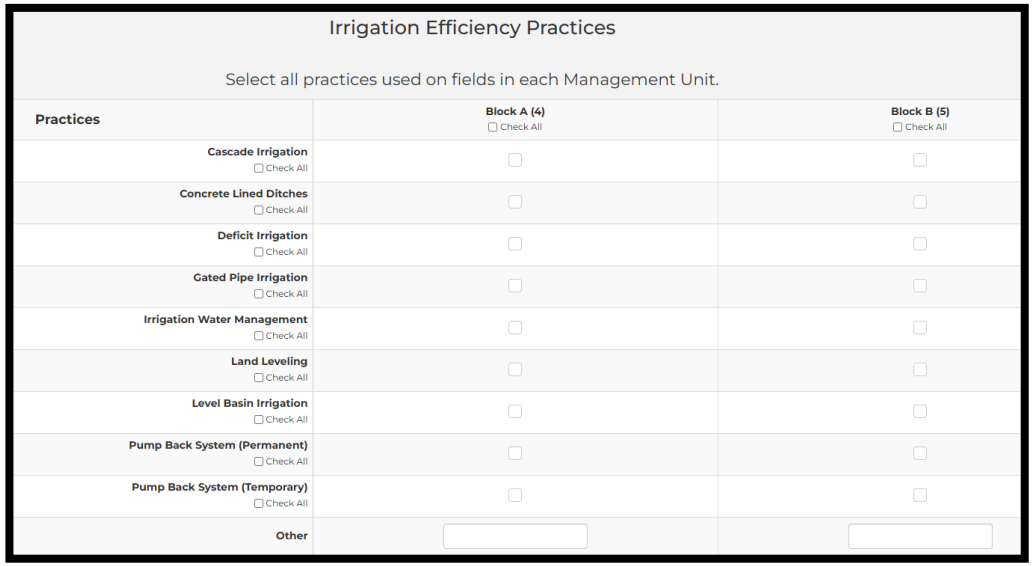
Entry Forms – Management Practices

Management Practice Questions

- What is your primary irrigation method?
- What is your secondary irrigation method?
- What irrigation efficiency practices do you use?
- What nitrogen efficiency practices do you use?

These questions are on both the INMP Summary Report AND Farm Plan

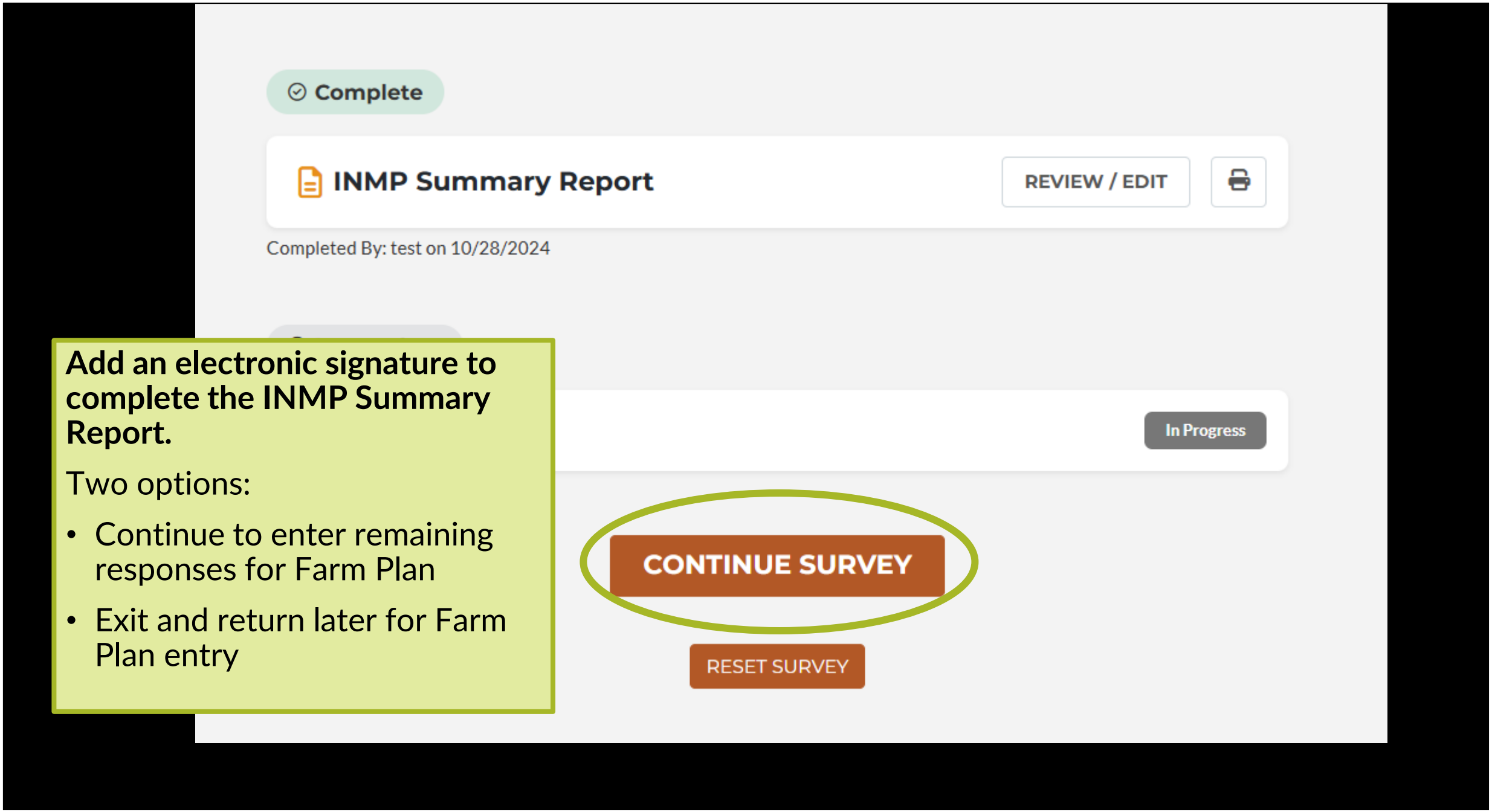
Entry forms apply your response to **both** surveys to reduce redundancy.



Irrigation Efficiency Practices

Select all practices used on fields in each Management Unit.

Practices	Block A (4) ☐ Check All	Block B (5) ☐ Check All
Cascade Irrigation ☐ Check All	☐	☐
Concrete Lined Ditches ☐ Check All	☐	☐
Deficit Irrigation ☐ Check All	☐	☐
Gated Pipe Irrigation ☐ Check All	☐	☐
Irrigation Water Management ☐ Check All	☐	☐
Land Leveling ☐ Check All	☐	☐
Level Basin Irrigation ☐ Check All	☐	☐
Pump Back System (Permanent) ☐ Check All	☐	☐
Pump Back System (Temporary) ☐ Check All	☐	☐
Other		



Add an electronic signature to complete the INMP Summary Report.

Two options:

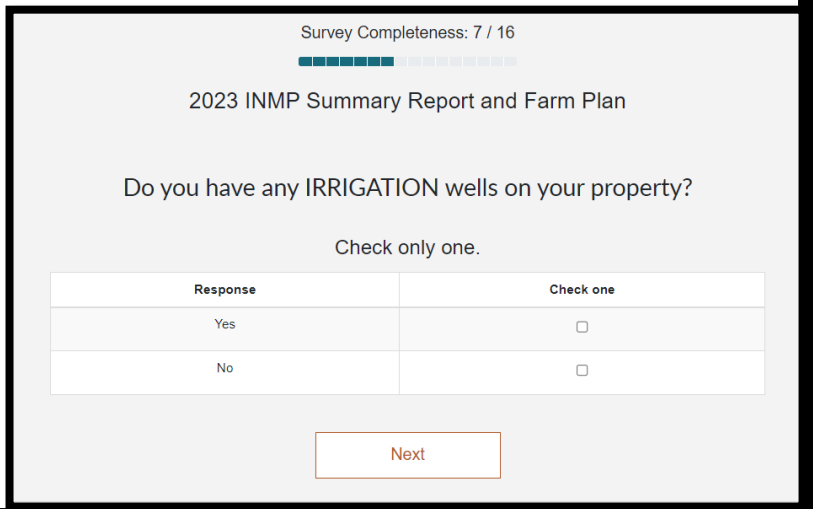
- Continue to enter remaining responses for Farm Plan
- Exit and return later for Farm Plan entry

Farm Plan– Well Information

- Do you have irrigation wells?

- Do you have abandoned wells?

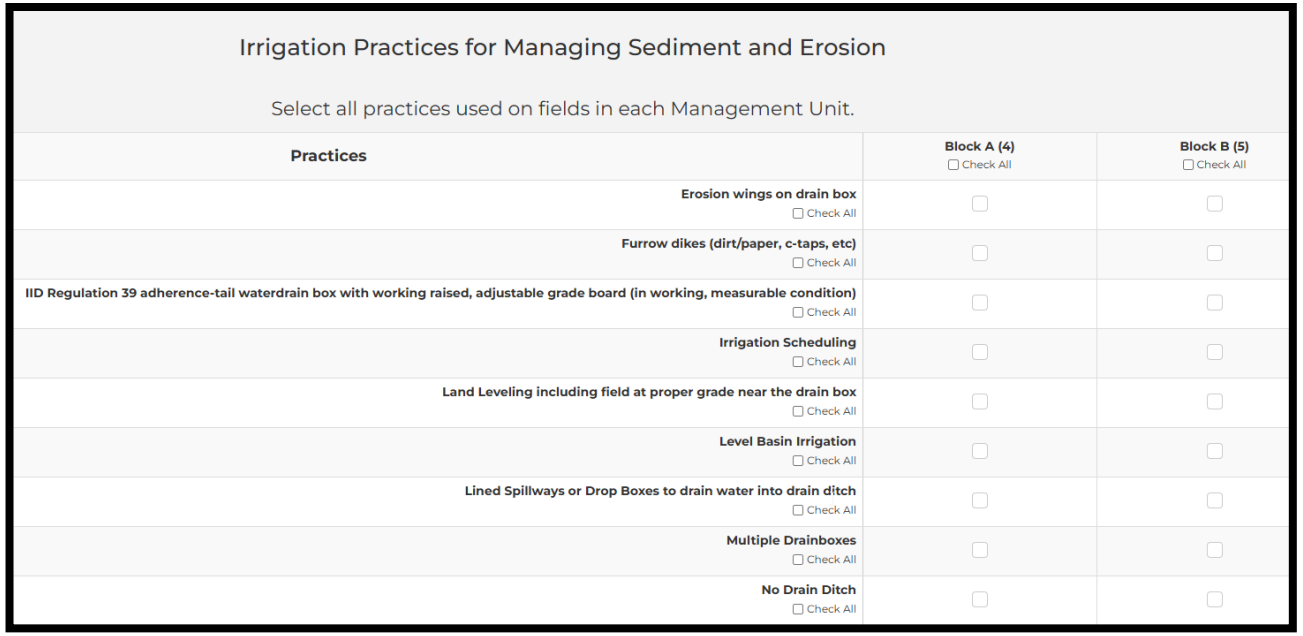
- How many drinking wells are on each parcel?



Farm Plan – Management Practices

- What irrigation management practices do you use for sediment and erosion control?

- What cultural practices do you use for sediment and erosion control?



Irrigation Practices for Managing Sediment and Erosion

Select all practices used on fields in each Management Unit.

Practices	Block A (4) ☐ Check All	Block B (5) ☐ Check All
Erosion wings on drain box ☐ Check All	☐	☐
Furrow dikes (dirt/paper, c-taps, etc) ☐ Check All	☐	☐
IID Regulation 39 adherence-tail waterdrain box with working raised, adjustable grade board (in working, measurable condition) ☐ Check All	☐	☐
Irrigation Scheduling ☐ Check All	☐	☐
Land Leveling including field at proper grade near the drain box ☐ Check All	☐	☐
Level Basin Irrigation ☐ Check All	☐	☐
Lined Spillways or Drop Boxes to drain water into drain ditch ☐ Check All	☐	☐
Multiple Drainboxes ☐ Check All	☐	☐
No Drain Ditch ☐ Check All	☐	☐

Farm Plan– Agricultural Chemicals

- List the chemicals typically applied to your crops.

Agricultural Chemicals

Please record the agricultural chemicals that you typically apply to crops on your operation below including but not limited to fertilizer and organic amendments, pesticides, and fumigants.

Management Unit	Comment (255 character limit)
Block A (39)	Simplot, MonoAmmonium Phosphate, 11-52-0;
Block B (40)	YaraMila, 16-16-16; Simplot Urea, 46-0-0
Block C (45)	Brandt, 20-20-20 Micro
Block C (46)	Simplot Urea, 46-0-0; Calcium Nitrate; Ammonium Sulfate

Done

Farm Plan – Spray Management

- What are your spray management practices?

- How often is equipment calibrated?

Spray Management Practices

Select all practices used on fields in each Management Unit.

Practices	Block A (4) ☐ Check All	Block B (5) ☐ Check All
Adjust spray nozzles to match crop canopy profile ☐ Check All	☐	☐
Follow pesticide label restrictions especially related to timing of application and irrigation ☐ Check All	☐	☐
Outside nozzles shut off when spraying outer rows near sensitive sites ☐ Check All	☐	☐
Spray areas close to waterbodies when wind blows away from waterbody ☐ Check All	☐	☐
Use air blast applications when wind is 3-10 miles per hour upwind of sensitive sites ☐ Check All	☐	☐
Use electronic controlled sprayer nozzles ☐ Check All	☐	☐
Use of nozzles that provide largest effective droplet size ☐ Check All	☐	☐
No Pesticides Applied ☐ Check All	☐	☐
Other		
Outsourced to a certified third-party company. Please provide company name:		

Farm Plan – Drainage and Runoff

- Describe your subsurface drainage system.

- Does your property have runoff?

Surface Waters Receiving Runoff

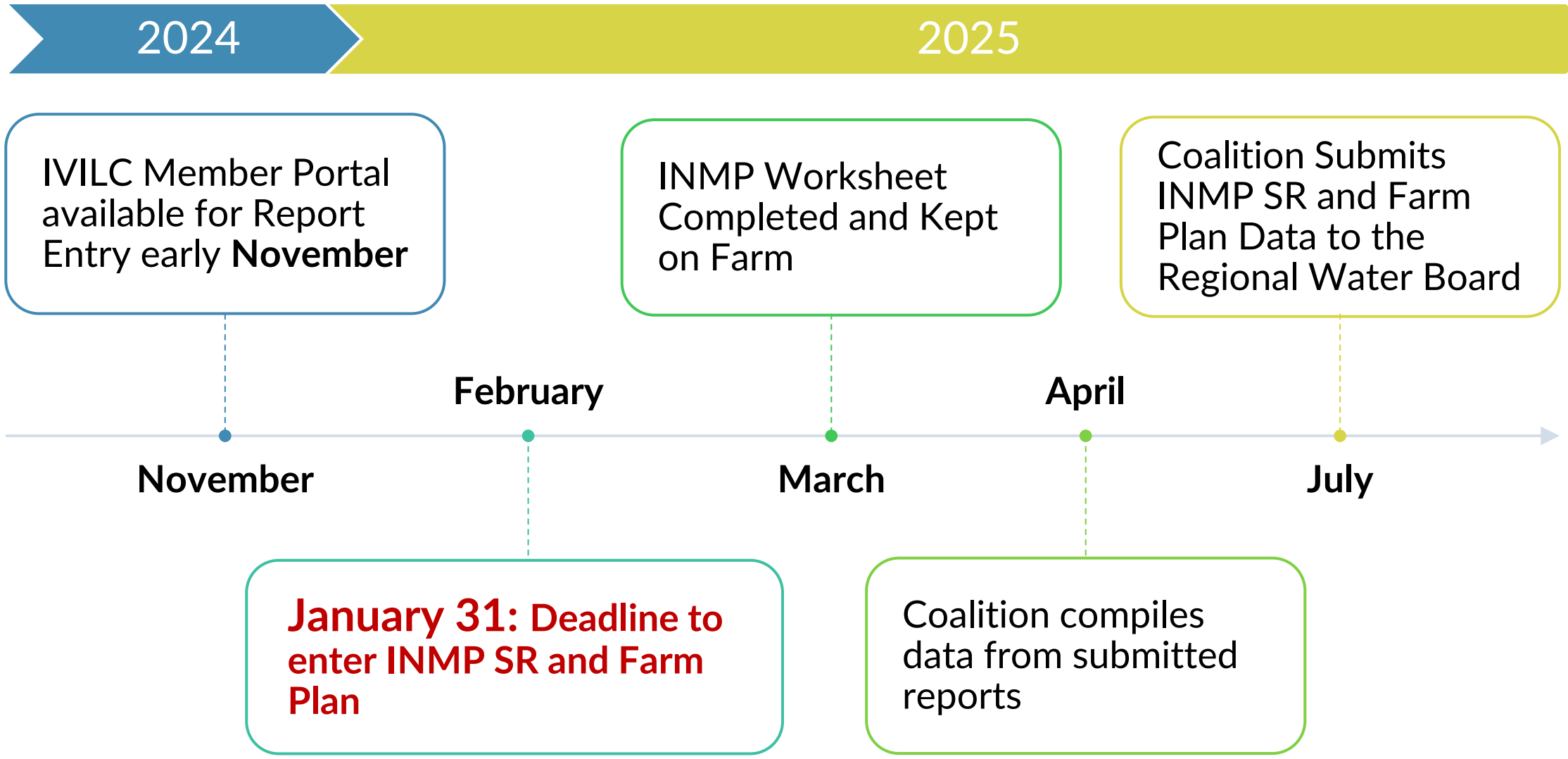
The name of the receiving surface waters to which irrigation runoff, stormwater runoff, and non-stormwater runoff from the operation is discharged as described below to meet the requirements of Order R7-2020-0026.

Response	Check all that apply
The Alamo River. Discharge to the Alamo River may occur via the Rose, Holtville, Central, South Central, or Verde drainsheds.	☐
The New River. Discharge to the New River may occur via the Fig, Greeson, Rice or Rice 3 drainsheds.	☐
Directly to the Salton Sea without joining to the Alamo River or New River.	☐
No runoff is discharged from your property	☐

Next

Surveys Complete!

Membership Reporting Timeline

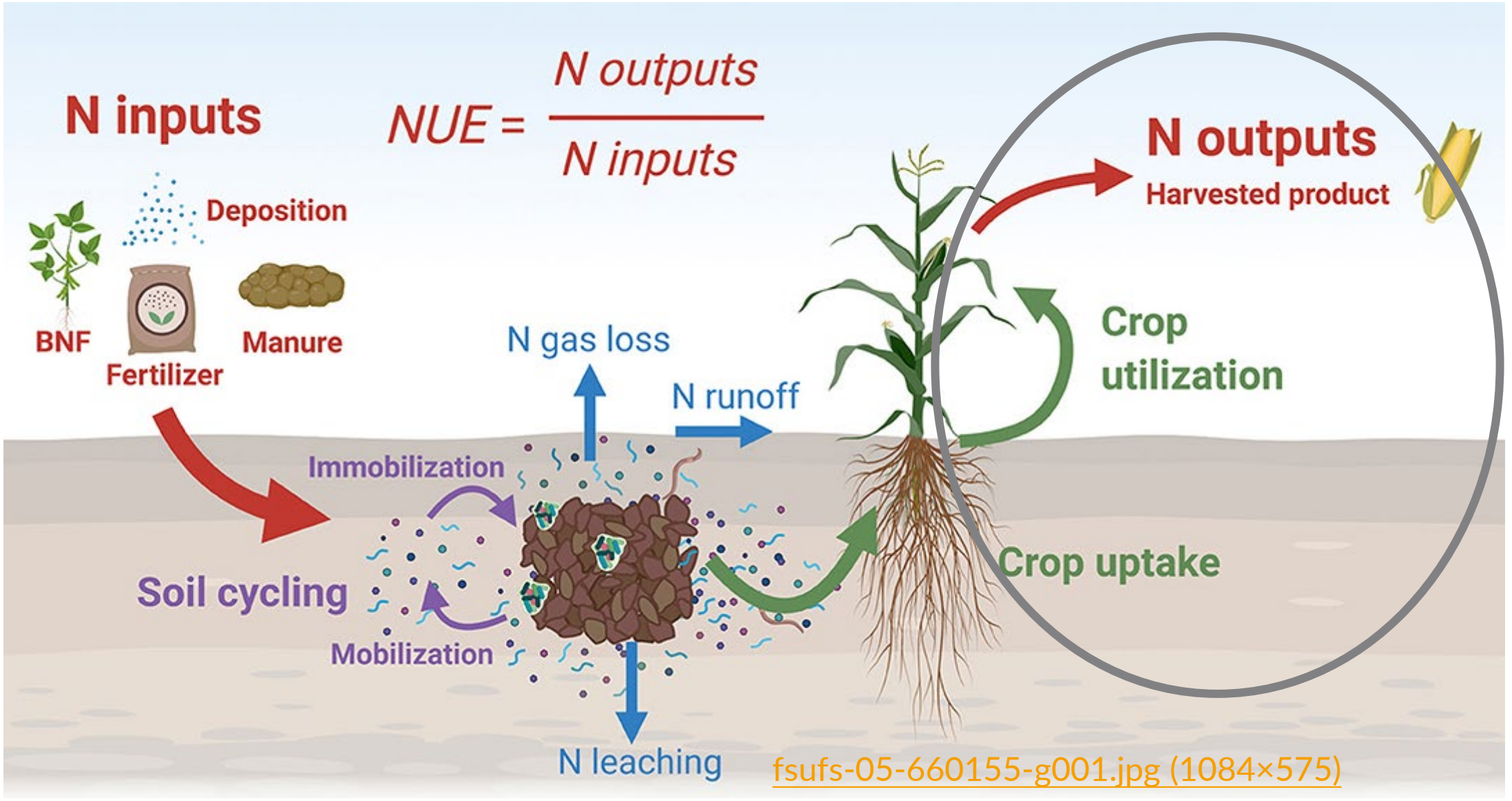


NITROGEN REMOVED COEFFICIENTS

Interpreting and Reporting INMP Data

Comparison of nitrogen applied to yield information gives an indication of relative efficiency

Need a way to express yield reported in terms of nitrogen



fsufs-05-660155-g001.jpg (1084×575)

Converting Yield to Nitrogen Removed

Nitrogen Removed Coefficients are used to convert amount harvested material to pounds of N removed

Estimates amount of nitrogen to efficiently grow a crop

Values obtained from scientific literature and studies

Converting Yield to Nitrogen Removed

- Example: **Carrots**
  - Coefficient for carrots is 0.0015*
    - pounds of N removed per pound of yield

    * Developed by Dr. Ali Montazar for low desert specific growing conditions
  - **If yield is 30,000 lbs then crop needs 45 lbs/N acre**
    - Pounds of N removed = 30,000 lbs yield * 0.0015 = 45 pounds of N removed with harvest
- CDFA “FREP” Program has best library of existing crop nitrogen coefficients
  https://www.cdfa.ca.gov/is/ffldrs/frep/FertilizationGuidelines/

Status of Nitrogen Removed Coefficients

- March 1, 2024 – Submittal of a tech memo arguing for additional time to evaluate N removed coefficients available for crops grown in the Imperial region
- April through June 2024 – Literature review
- July 1, 2024 – Submittal of INMP SR data and findings from N removed coefficient review
  - Three coefficients considered “good” that have been developed in this region
  - Carrots, Sudan grass, Rhodes grass
- July 1 each year – updates on N removed coefficients
- March 1, 2029 - 95% of acreage with N removed coefficients
- March 1, 2030 – 99% of acreage with N removed coefficients

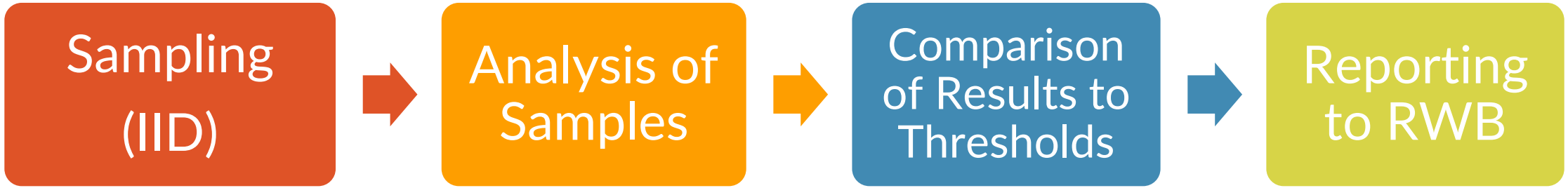
Coefficient Studies in Colorado River Basin Region (Montazar)

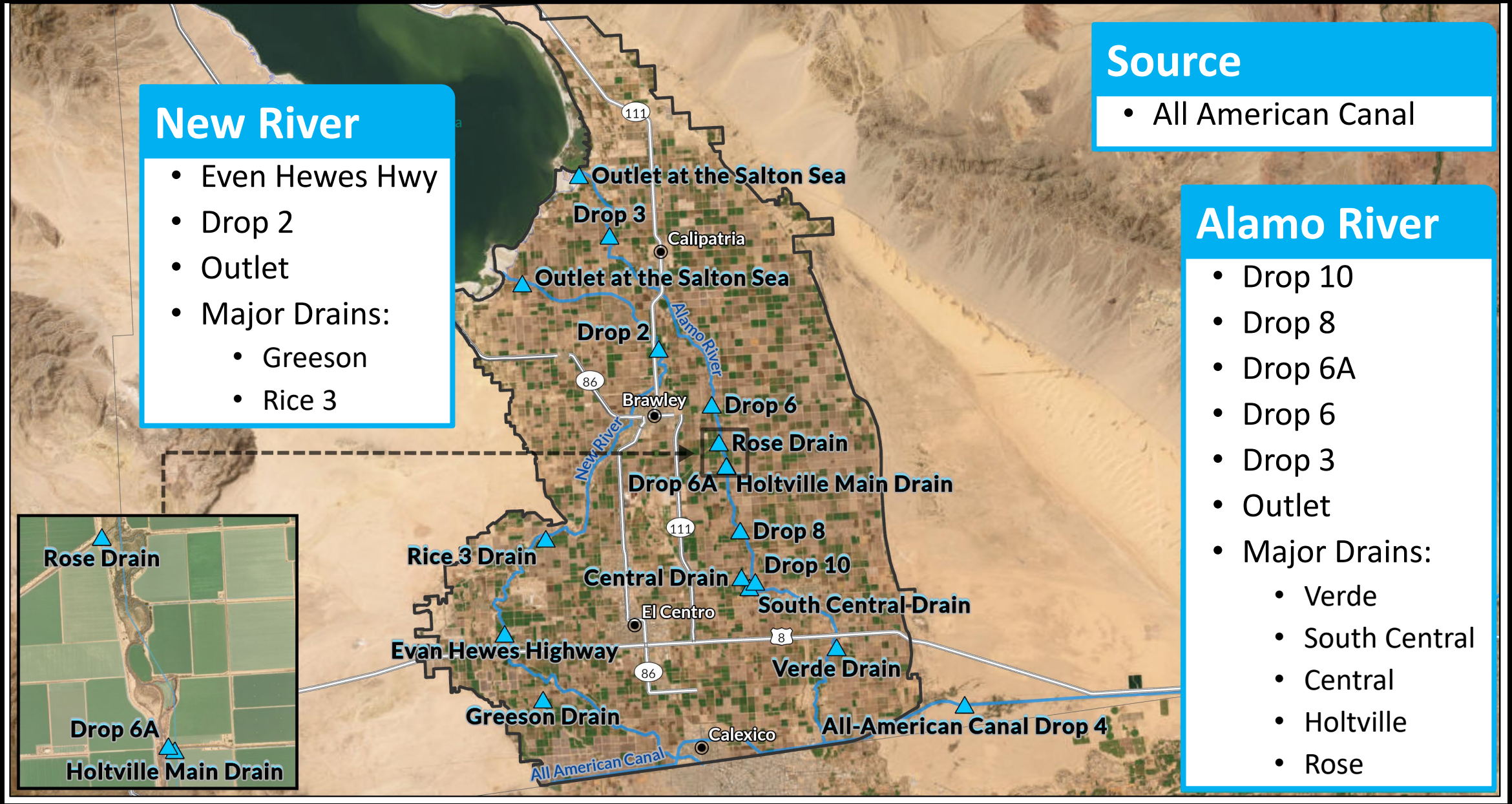
SPECIFIC CROP TYPE	ASSOCIATED ACREAGE (%)	ASSOCIATED ACREAGE	Status
ALFALFA, HAY	35.00%	134556	Funded
BEETS, SUGAR	4.60%	17411	Funded
BROCCOLI	1.80%	6985	Funded
CARROT	2.70%	10260	Accepted
CAULIFLOWER	0.80%	3021	Funded
CITRUS, LEMON	1.00%	3817	Funded
DATES	0.24%	906	Funded
GRASS, BERMUDA, HAY	10.00%	39647	Funded
GRASS, KLEIN, HAY	5.50%	20719	Funded
LETTUCE	1.20%	4421	In Progress
LETTUCE, ROMAINE	1.10%	4264	In Progress
ONIONS, DEHYDRATOR	3.00%	11412	Funded
PEPPERS, CHILE	0.13%	500	Funded
SUDAN, HAY	2.70%	10314	Accepted
TOTAL PERCENT ACREAGE AT COMPLETION OF STUDIES	**70%**		

SURFACE AND GROUNDWATER REPORTING

Surface Water Monitoring

- Goal is to characterize the impact of irrigated agriculture on the water quality on surface waters and drains in Imperial Valley.

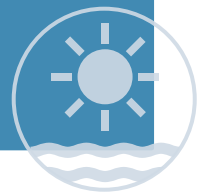



New River
Even Hewes Hwy
Drop 2
Outlet
Major Drains:
Greeson
Rice 3
Source
All American Canal
Alamo River
Drop 10
Drop 8
Drop 6A
Drop 6
Drop 3
Outlet
Major Drains:
Verde
South Central
Central
Holtville
Rose
Outlet at the Salton Sea
Drop 3
Calipatria
Outlet at the Salton Sea
Drop 2
Alamo River
Brawley
Drop 6
Rose Drain
New River
Drop 6A
Holtville Main Drain
Drop 8
Rice 3 Drain
Drop 10
Central Drain
South Central Drain
El Centro
Evan Hewes Highway
Verde Drain
Greeson Drain
All-American Canal Drop 4
Calexico
All American Canal
Rose Drain
Drop 6A
Holtville Main Drain
111
86
8

Surface Water Monitoring - Constituents

- pH
- Water Temperature
- Dissolved Oxygen
- Electrical Conductivity
- Flow

Field Measures



- Total Phosphorous
- Total Nitrogen, Nitrate as N, Nitrite as N, Total Kjeldahl Nitrogen, Ammonia as N
- Selenium
- *E. coli / Enterococcus*
- Biological Oxygen Demand
- Hardness, Alkalinity, Chloride, Sulfate

Nutrients, Metals, Bacteria, Phys Parameters

- Chlorpyrifos
- Diazinon
- Malathion
- Bifenthrin
- Cyfluthrin
- Cypermethrin

Pesticides

- Fathead Minnow –survival / growth
- Water Flea – survival / reproduction
- Algae – growth

Toxicity

Quarterly → **Semiannually** → **Annually**

2023 Surface Water Exceedances

	Parameter	Threshold	Count of 2023 Exceedances
Field Measures	pH	6.0 to 9.0	None
	Dissolved Oxygen (DO)	5.0 mg/L	1
Physical Parameters	Total Suspended Solids (TSS)	200 mg/L	26
	Total Dissolved Solids (TDS)	4500 mg/L	None
Bacteria	*Enterococcus*	30 MPN/100 mL	63
Metals	Selenium	5.0 µg/L	52
Pesticides	Chlorpyrifos	14 µg/L	None
	Diazinon	100 µg/L	None
	Malathion	0.028 µg/L	None
	Bifenthrin	0.0006 µg/L	3
	Cyfluthrin	0.00005 µg/L	None
	Cypermethrin	0.0002 µg/L	4

Samples collected quarterly during 2023

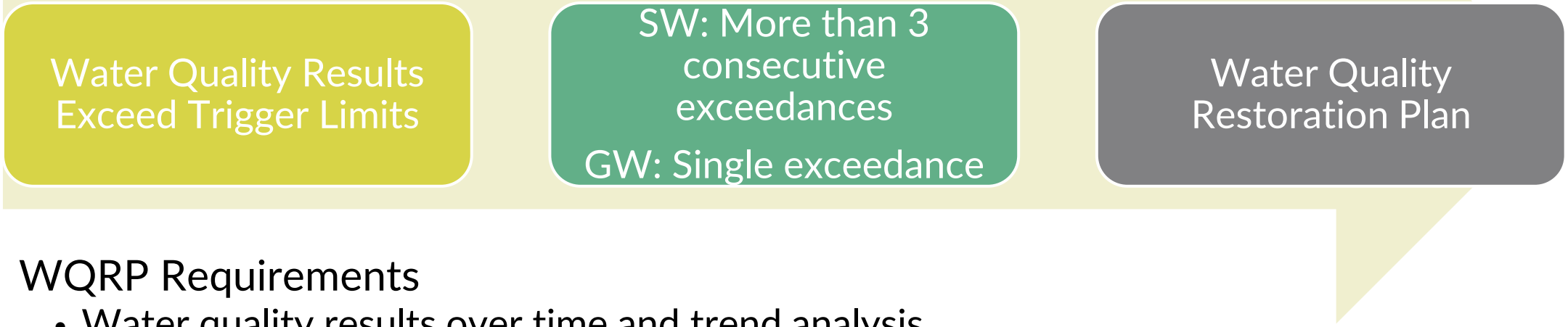
136 total samples

10 pesticide samples

Long term tracking began 2023

Assessed quarterly

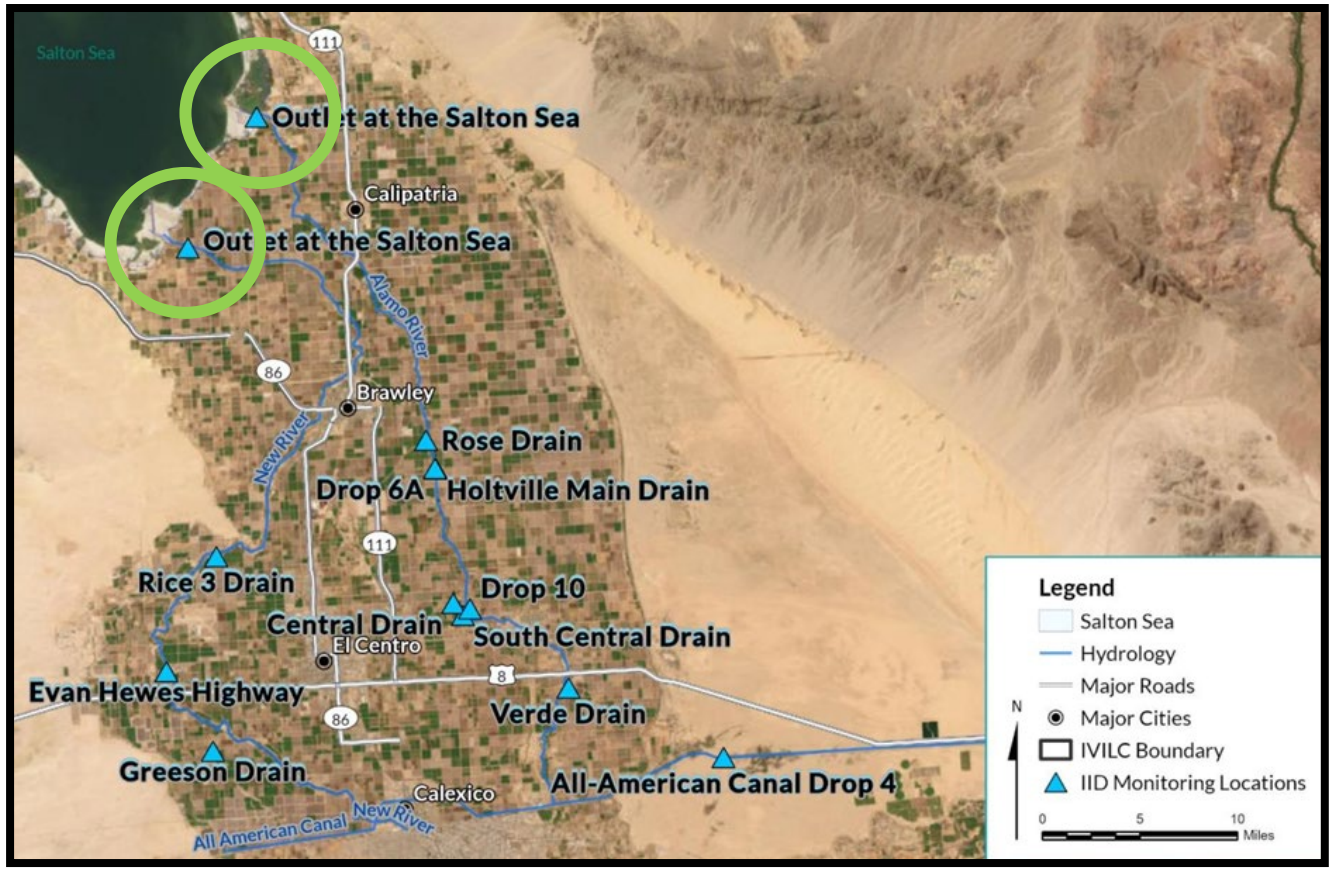
Water Quality Restoration Plans



WQRP Requirements

- Water quality results over time and trend analysis
- Description of actual or suspected sources
- For sources that are agriculture, identify management practices current implemented and practices that could be implemented/improved
- Schedule for implementation
- Monitoring and Reporting Plan
- Must be approved by the Executive Officer

Surface Water Monitoring – Fish Tissue



RWB requirement to sample high level trophic fish for contaminants at 2 sites, annually, starting 2021.

IVILC BOD Members requested that the sampling requirement be postponed.

RWB denied IVILC's request to postpone fish tissue sampling.

MLJ conducted the first fish tissue sampling this week.

RWB – Regional Water Board

Groundwater Monitoring Program Plan

Purpose

- Regional impact of agricultural on groundwater conditions
- Long-term trends in groundwater quality

Groundwater Monitoring Workplan

- Submitted December of 2022
- Extension of Program approved
- Monitoring on hold while discussions with Regional Board continue

Well Network

- More resources than expected spent on a number of candidate wells that are incompatible
- Progress on hold while discussions continue

Coalition Advocacy Efforts

Nitrogen Reporting

- Ensuring assumptions are not made and limitations are not imposed on nitrogen use.
- State Water Resources Control Board Expert Panel

Nitrogen Coefficients

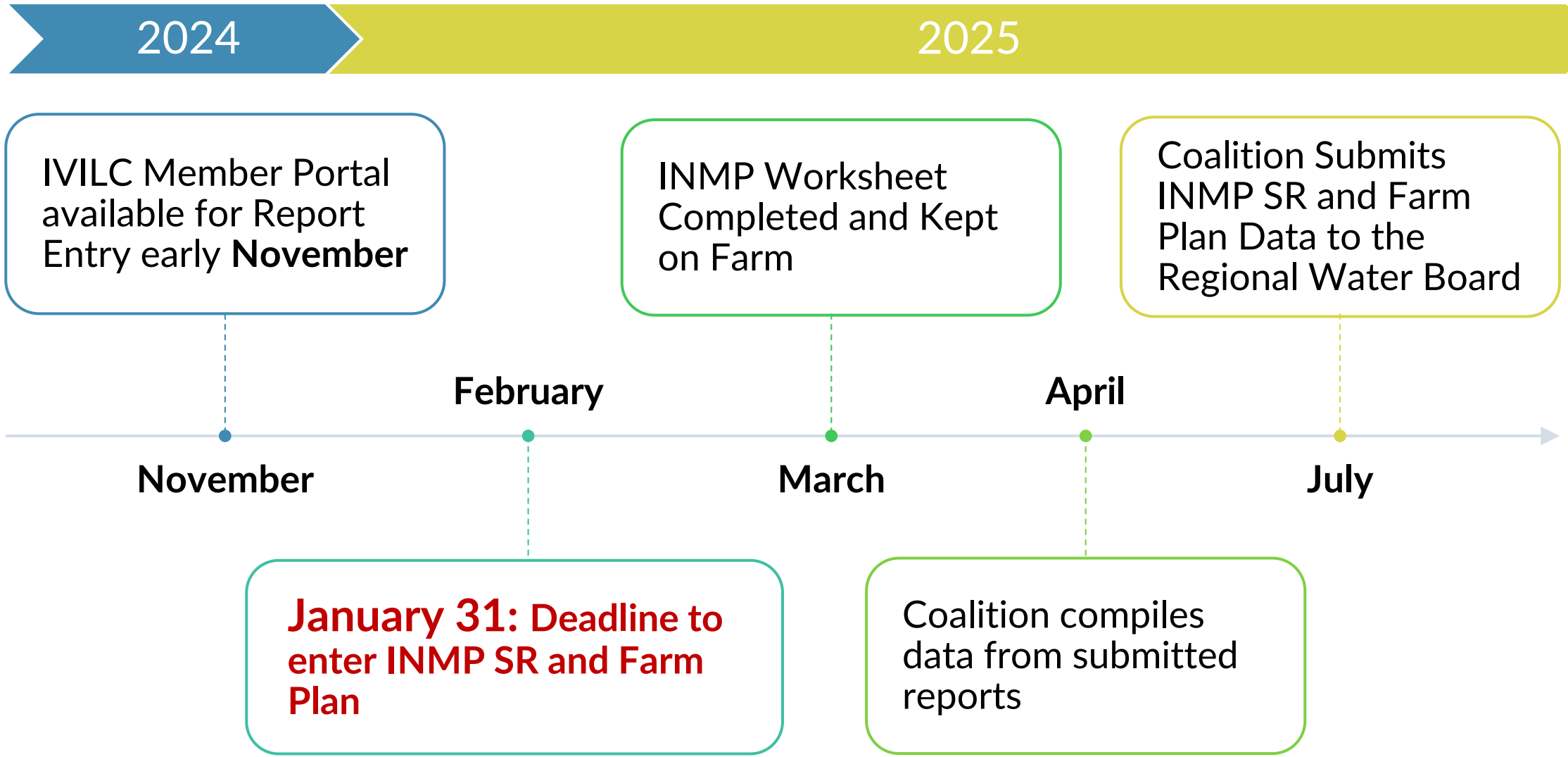
- Develop coefficients for converting crop yield to Nitrogen removed for 95% of crops by March 1, 2029 and 99% by March 1, 2030. Currently coefficients exist for only two crops in Imperial County.
- Ensure all coefficients are developed specific to local growing conditions. Coefficients for same crops from different regions not applicable.

Groundwater Monitoring

- Exemption Request due to financial, logistical, and technical challenges

QUESTIONS?

Membership Reporting Timeline



Reporting INMP Data

- **A** = Nitrogen Applied
  - Reported by members on INMP SR as lbs/acre
- **R** = Nitrogen Removed
  - Converted yield value using Nitrogen Removed Coefficient
- Comparisons of A and R are required as a part of Coalition reports
  - **A/R** = Ratio (efficiency)
  - **A-R** = Difference (potential loading risk)
- A/R and A-R are indicators of nitrogen efficiency
- Values summed over time – three year running totals