



SANTA ANA WATERSHED
PROJECT AUTHORITY

Santa Ana River Mitigation Bank Update

SAWPA Commission Meeting
February 4, 2025

Jeff Mosher
General Manager

Recommendation

- Receive and file.

Purpose of Presentation

- Review background on Riverside County's **Santa Ana River Mitigation Bank**
 - Purpose/role
 - SAWPA's involvement
 - Funding source
- Status/Use of funding generated from the Bank
 - Available credits (48 credits representing ~\$2M)
 - Removal of Arundo in the SAR Watershed
 - Current challenges
- Proposed approach for using revenue from Bank credits
 - Revenue from remaining credits
 - Proposed Plan for the funding from the credits



Note: Numbers on this slide (and rest of PPT) are rounded. For example, SAWPA has 47.756 credits remaining, the presentation uses 48 credits.

Mitigation Bank Background

- Prop 13 State Water Board grant
 - SAWPA purchased **100 credits** in **Riverside County Park's Santa Ana River Mitigation Bank**
 - Purchased in 2004
 - Cost: \$4,000,000 (40,000 per credit)
 - SAWPA Resolution 427 (May 18, 2004) – use of credit sales
- When SAWPA's credits are sold by the Bank:
 - Provides SAWPA with **funding for Arundo removal and maintenance projects** within the Watershed
 - Also, we can identify, develop, and fund **targeted habitat restoration** projects within the Watershed
- Status of Credits:
 - ~52 credits sold between 2024 and 2015 (~48 remain)
 - No credits sold since 2015



Bank Credit Price

- Original Purchase Price: **\$40,000 per credit** (Prop 13 funding)
- Bank set a credit price is **\$45,398** per acre
 - Established by Riverside County Parks
 - Price developed 1990s
- SAWPA receives **\$44,490** in revenue per credit sale
 - 2% less than the credit price
 - 2% is the RivCo admin services fee (per agreement)

Current Project:

Arundo Donax Removal in the Santa Ana River Basin Headwaters

- **Project Partner:** Inland Empire Resource Conservation District (IERCD)
- **Purpose:** Removal of Arundo (and follow up maintenance) in upper areas of the Watershed (see map)
- **Budget:** \$150,000
- **Source of Funding:** SAWPA revenue from Mitigation Bank
- **Status:**
 - Projects runs from 2022-2027
 - 294 stands of Arundo removed to date



Current Status of Credit Funding

Source	Amount	Comment
SAWPA Arundo Fund Balance	~\$670,000	Funding from previously sold credits that SAWPA is holding
Value of Credits in Bank	~\$2,040,000*	Estimated value of 48 credits remaining in Bank
Total	~\$2,710,000	

* We want a plan obtaining the remaining revenue from the Bank

Plan to receive revenue from Bank

Status:

- **No revenue** has been accrued to SAWPA since 2015 from the Bank since 2015 (not a lot of demand)
- SAWPA has ~48 credits remaining (**>\$2M**)

Reminder: SAWPA has 47.756 credits remaining (not an exact 48).

Proposed approach for remaining revenue from Bank:

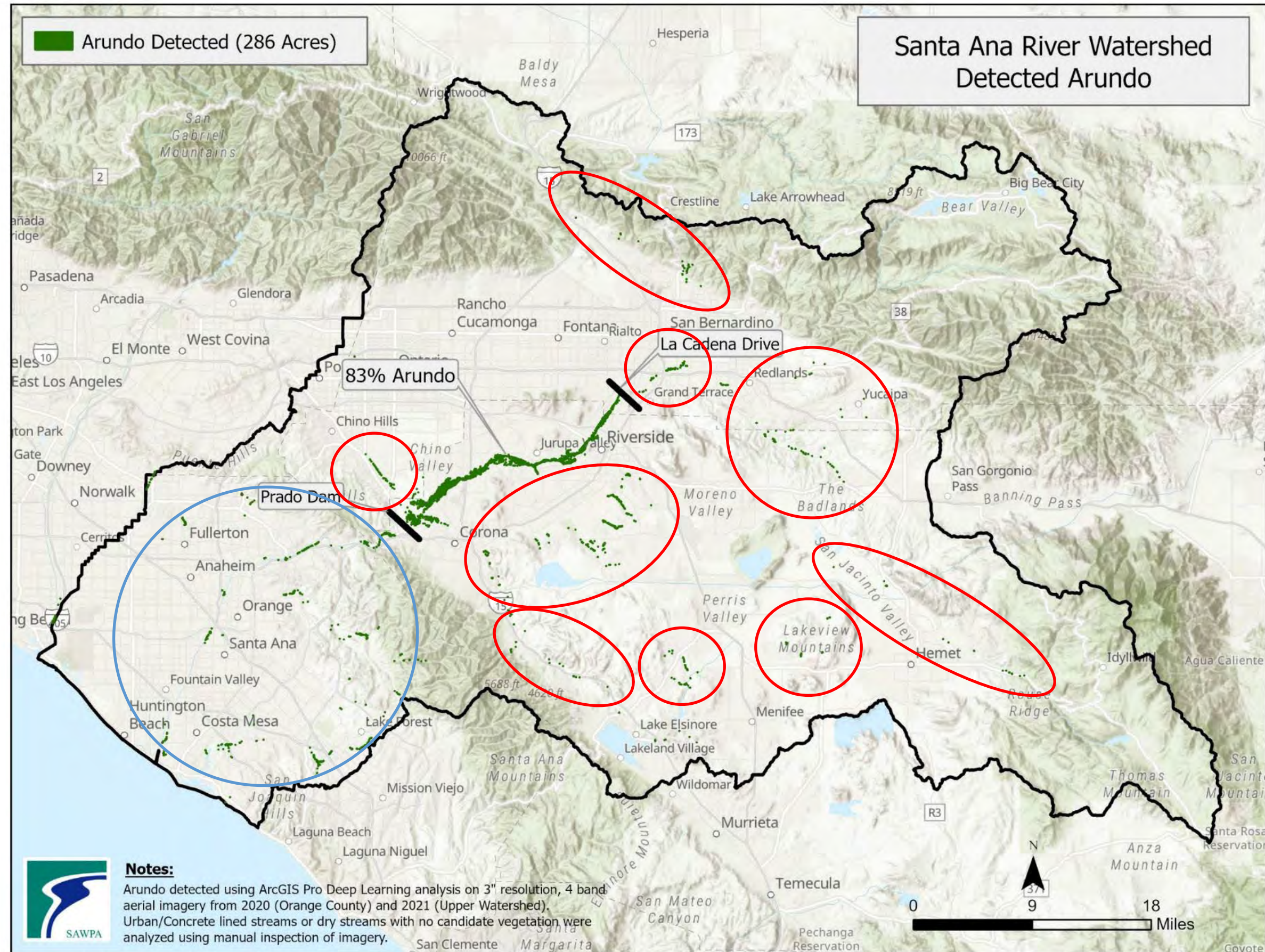
- Sell ~32 of the remaining credits to Santa Ana Watershed Association (SAWA) for **~\$1.4M** (in process)*
- Request funding back from Riverside County Parks for the remaining credits (**~\$643,000**)**

* Other than this purchase by SAWA, there are no additional purchases in the pipeline at the Bank.

** Once this transaction goes through, SAWPA will not have any credits left in the Bank.

Why do we want the funding now?

- Arundo is still pervasive in the watershed
- Mitigation Bank credits have not been purchased since 2015
- Use the funding in the Mitigation Bank funding for:
 - Arundo removal and maintenance projects in the watershed



Plan For SAWPA's ~48 Mitigation Bank Credits

1. Recent request: Santa Ana Watershed Association (SAWA) is interested in purchasing **31.672 credits** (July 2024)

– **Revenue:** 31.672 credits x \$44,490 per credit = **\$1,409,087**

– **Timing:** February 2026

2. Request funding from RivCo for remaining credits

– **Remaining credits:** 47.756 – 31.672 = 16.074 (in Bank)

– **Value:** \$40,000 x 16.074 = **\$642,960**

– **Timing:** Begin request process in Spring 2025

– **Option:** Leave these credits in Bank (but there is no timeline for getting the revenue – could be years)

SAWA (501c3 nonprofit) restores the natural functions of the watershed by enhancing and restoring the native riparian habitat, removing exotic, invasive species.



Potential Revenue: ~\$2,040,000

Review: Current Funding

Source of Funding	Amount	Comment
SAWPA Arundo Fund Balance	~\$670,000	Funding from previously sold credits that SAWPA is holding
Value of Credits in Bank	~\$2,040,000	Estimated value of ~48 credits remaining in Bank
Total	~\$2,710,000*	

* We want to make a plan for removing/managing Arundo (and/or other invasive species) in the watershed using this funding

Proposed Plan for Bank Revenue



Plan: Regional Arundo Management Collaboration

- **Status quo:** Arundo removal is mainly done on an ad hoc basis
- **Proposal:** Use the ~\$2,710,000 as the basis for a **regional collaborative effort** to optimize Arundo removal and leverage available funding
- **Purpose:**
 - Provide **funding for Arundo removal and maintenance** within the watershed
 - Also, the Prop 13 funding can be used to identify, develop, and fund other **targeted habitat restoration** projects within the Watershed (i.e., removing invasive species)
 - Engage stakeholders in the watershed to develop strategy and partnerships
 - Leverage the funding with other grants

Potential Collaborators

Agency Name	Type
City of Corona (Community Services)	City
City of Jurupa Valley (Community Services Department)	City
Irvine Conservancy	Conservancy
Redlands Conservancy	Conservancy
Rivers and Lands Conservancy	Conservancy
OC Public Works - Environmental Resources	Flood
OC Public Works - Infrastructure Programs	Flood
Riverside County Flood Control and Water Conservation District	Flood
San Bernardino County Flood Control District	Flood
U.S. Army Corps of Engineers	Flood
Cleveland National Forest	Forest
San Bernardino National Forest	Forest
Inland Empire Community Foundation	Nonprofit
California State Parks	Parks
City of Riverside Parks	Parks
County of Orange Parks	Parks
Riverside County Parks and Open-Space District	Parks
San Bernardino County Parks	Parks

Agency Name	Type
Inland Empire Resource Conservation District	RCD
Riverside-Corona Resource Conservation District	RCD
San Jacinto Resource Conservation District	RCD
Santa Ana Watershed Association	Nonprofit
California Department of Fish and Wildlife	Regulatory Agency
Santa Ana Regional Water Quality Control Board	Regulatory Agency
U.S. Fish and Wildlife Service	Regulatory Agency
Southern California Edison	Utility
City of Riverside Public Utilities (RPU)	Water Agency
City of Riverside Public Works	Water Agency
Eastern Municipal Water District	Water Agency
Inland Empire Utilities Agency	Water Agency
Metropolitan Water District	Water Agency
Orange County Water District	Water Agency
San Bernardino Valley Municipal Water District	Water Agency
SAWPA	Water Agency
Western Water	Water Agency

Collaboration Topics (draft – work in progress)

- Assemble working group as a first step
 - Identify participating/interested agencies/organizations
- Data Collection (location, footprint, entity)
 - Past projects
 - Current and proposed projects
- Assess the need for a Strategic Plan or Strategic Approach for Arundo management
 - Define success
 - Assess best practices and new and novel approaches
 - Develop an optimized and prioritized approach for removal/maintenance
- Develop Tracking Tool
 - Track removal and maintenance efforts
- Leverage efforts/funding through partnerships and grant opportunities
- Fund effective and efficient removal and maintenance projects

Summary



Plan For SAWPA's ~48 Mitigation Bank Credits

- 1. Recent development:** Santa Ana Watershed Association (SAWA) is interested in purchasing **31.672 credits** (July 2024)
 - **Revenue:** 31.672 credits x \$44,490 per credit = **\$1,409,087**
 - **Timing:** February 2026
- 2. Request funding from RivCo for remaining credits**
 - **Remaining credits:** 47.756 – 31.672 = 16.074 (in Bank)
 - **Value:** \$40,000 x 16.074 = **\$642,960** (but ask for interest too)
 - **Timing:** Begin request process in Spring 2025
 - **Option:** Leave these credits in Bank (but there is no timeline for getting the revenue – could be years)

SAWA (501c3 nonprofit) restores the natural functions of the watershed by enhancing and restoring the native riparian habitat, removing exotic, invasive species.



Total Revenue: ~\$2,040,000

Plan for Bank Revenue:

Regional Arundo Management Collaboration

- **Proposal:** Use the ~\$2,710,000 as the basis for a **regional collaborative effort** to optimize Arundo removal and leverage funding
- **Purpose:**
 - Provide **funding for Arundo removal and maintenance** within the watershed
 - Also, the Prop 13 funding can be used to identify, develop, and fund other **targeted habitat restoration** projects within the watershed (i.e., removing invasive species)
 - Engage stakeholders in the watershed to develop strategy and partnerships
 - Leverage the funding with other grants

Recommendation

- Receive and file.

Thank You

Jeff Mosher
Santa Ana Watershed Project Authority

sawpa.gov



Background Slides



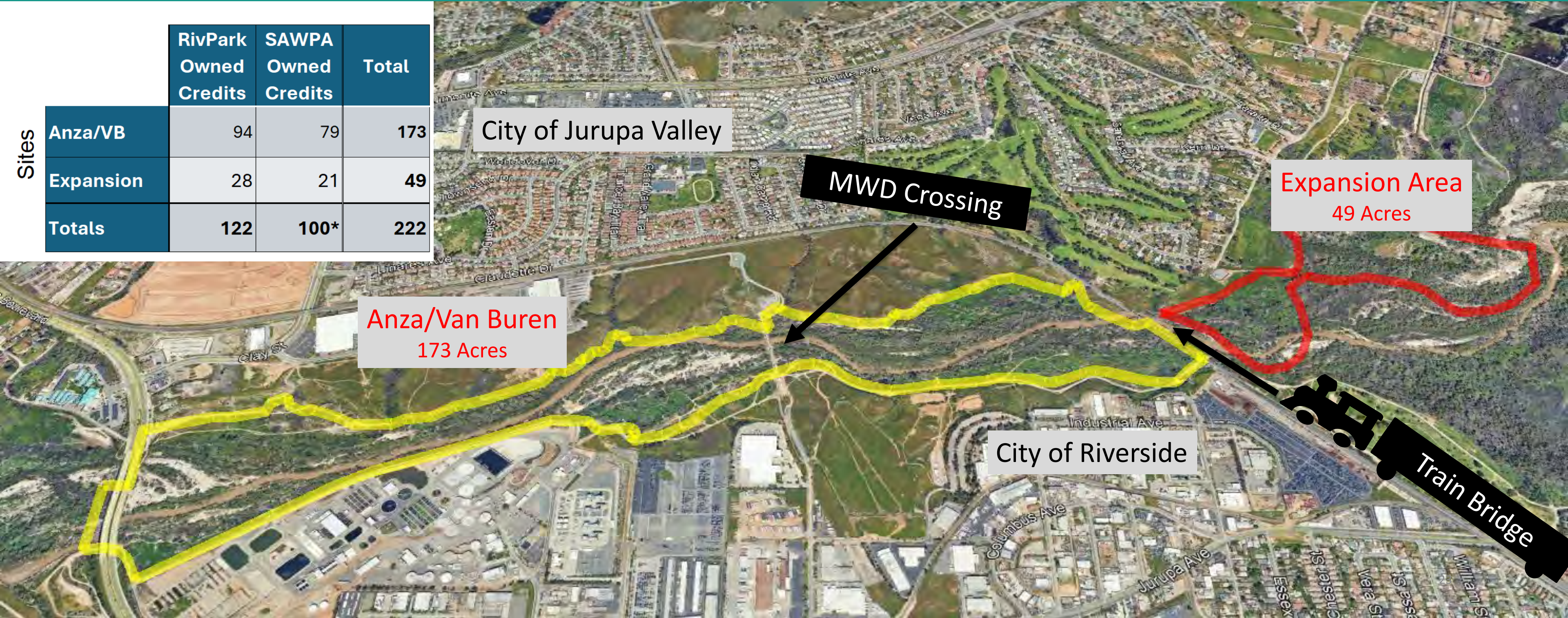
Arundo Donax

- Invasive, non-native plant
- Provides no habitat benefit
- Grows 4 inches per day and up to a total height of 33 feet
- Highly flammable
- Causes flooding by altering flow regimes
- **Consumes large volumes of water from Santa Ana River Watershed**



Mitigation Bank Site in Santa Ana River

Sites	RivPark Owned Credits	SAWPA Owned Credits	Total
Anza/VB	94	79	173
Expansion	28	21	49
Totals	122	100*	222



Anza/Van Buren
173 Acres

Expansion Area
49 Acres

City of Jurupa Valley

City of Riverside

MWD Crossing

Train Bridge

History of Credit/Acre Sales

Entity	Total Credits	Sold	Remaining	Notes
Riverside County Parks	122	94	28	<ul style="list-style-type: none">• Purchased from 1998 to 2004
SAWPA	100	~52	~48	<ul style="list-style-type: none">• 2004 to 2015

Estimated Net Water Savings Calculation

Arundo Water Consumption – Native Vegetation Water Consumption = Water Savings

- Native vegetation consumes an estimated **4 AFY/acre**
- Reported Arundo consumption rates have varied across studies
 - Determined through evapotranspiration (ET) rates



Estimated Net Water Savings Calculation

Arundo Water Consumption – Native Vegetation Water Consumption = Water Savings

- An early paper used the ET value of **rice** to approximate the ET value for Arundo, resulting in a water consumption rate of **7.7 AFY/acre**
- Two newer studies that used direct measurements of **Southern California Arundo** yielded water consumption rates of **24 AFY/acre**
 - Study calculated an original consumption rate of 48 AFY/acre, but determined 24 AFY/acre was more in line with comparable plant species

**7.7 AFY/acre – 4 AFY/acre =
3.7 AF/year/acre = Water Savings**

Iverson
1998

**24 AFY/acre – 4 AFY/acre =
20 AF/year/acre = Water Savings**

Abichandani 2007 &
Cal-IPC 2011

Update on Basin Monitoring Task Force – Basin Plan Amendments

February 4, 2025

General Scope of Potential Amendments



Intended to be clarifying/non-controversial



Intended to “fix” errors and inadvertent omissions



Intended to provide updated data and information on regional projects

Proposed Basin Plan Amendments – Chapter 4 Water Quality Objectives

- MBAS corrections
- Clarification re: determining compliance for Santa Ana River Reaches 2 and 3
 - *Reach 2 - 60-month volume weighted average*
 - *Reach 3 – New definition of baseflow*
- Discretion to compare to alternative approach
 - *Daily TDS calculated from daily EC measurements*
- Clarification re: Prado Basin Surface Water Management Zone
- Revisions to Table 4-1

Proposed Basin Plan Amendments – Chapter 5 Implementation

- Updates to Orange County's Groundwater Replenishment System language
- Updates to Other Projects and Programs language
- Revisions to Maximum Benefit Commitments
 - Align ambient groundwater quality determinations with Recomputation being done on a five-year basis versus three-year basis
 - Clarify that responsible agencies may prepare recomputation on their own, or contribute to Basin Monitoring Task Force efforts

Proposed
Basin Plan
Amendments
– Attachment
B to R8-2021-
0025

- Salt Management Plan – Monitoring Program Requirements
- *Clarifications re: Santa Ana River Reaches 2 and 3 compliance determinations*

Additional Revisions to TDS/Nitrogen Management

1. Add in summary paragraph re: Water recycling use goals & objectives
2. Add in implementation summary for other sources of TDS & Nitrogen to Groundwater
 - Dairy General Order Language
 - General Order for Irrigated Ag in San Jacinto River Watershed
3. Add in brief summary re: compliance with Antidegradation Policy
4. Update Other Projects and Programs Language (pages 5-34 through 5-38)
5. Update Declaration of Conformance Language (page 5-42)

Activity	Timing
Circulate revised draft Basin Plan Amendments for review & comment	Draft to Task Force – December 31, 2024
Work with Santa Ana Water Board to draft Tribal Consultation Letter and CEQA Scoping Meeting Notice	January 2025
Comments due on revised draft Basin Plan Amendments to I. Achimore and T. Dunham	February 2025
Circulate draft Substitute Environmental Document to Task Force	April 2025
Circulate final draft Basin Plan Amendments to Task Force	April 2025
Comments due on draft Substitute Environmental Document to I. Achimore and T. Dunham	May 2025

Updated Schedule