

EXECUTIVE DIRECTOR'S REPORT



February 7, 2024
Board of Director's
Meeting

Thad Bettner Joins the Sacramento River Settlement Contractors as its New Executive Director



The Board of Directors for the [Sacramento River Settlement Contractors](#) (SRSC) are pleased to announce that Thad Bettner has joined them as their new Executive Director.



In this new and exciting role, Thad will bring his knowledge and combination of leadership and technical skills to coordinate the SRSC and their various efforts to serve water for cities and rural communities, farms and ranches, National Wildlife Refuges, and Chinook salmon along the Sacramento River. Thad will continue to actively partner with federal and state agencies, various conservation organizations, Central Valley Project water contractors and water agencies throughout California, and he will continue to work closely with the [Northern California Water Association](#) and water resources managers in the Sacramento Valley. Please join us in welcoming Thad Bettner to this new role!

Thad has worked for water agencies in the Sacramento and San Joaquin Valleys and he has thirty-three years of experience with irrigation and water agencies on the local, state, and federal levels. From 2006 through 2023, Thad served as general manager of the Glenn-Colusa Irrigation District (GCID) where he guided the district through critical water policy changes while improving the district's infrastructure and building, investing in partnerships, and leading the efforts for a science collaborative—the [Sacramento River Science Partnership](#).

Thad is a registered civil engineer and a recognized expert on issues of water and the environment bringing innovative solutions to historically challenging problems. He has served on the boards of the U.S. Committee on Irrigation and Drainage, the Power and Water Resources Pooling Authority, Colusa and Glenn groundwater authorities, and Chaired the Sites Reservoir Committee.

He has published several papers on agricultural water use efficiency and irrigation systems efficiencies. He holds a B.S. in Agricultural Engineering from Cal Poly, San Luis Obispo.

For Thad's personal story and podcast, see [Going with the Flow](#).

Sacramento River Settlement Contractors

The Sacramento River Settlement Contractors (SRSC) is a partnership of 145 agricultural and municipal senior water rights holders in the Sacramento Valley that manages water resources for cities, rural communities, farms, fish and wildlife and their habitats. The Sacramento River Settlement Contractors include irrigation and reclamation districts, mutual water companies, partnerships, corporations, and individuals representing approximately 450,000 acres of irrigated agriculture in the western Sacramento Valley. For more information, see the [SRSC website](#); see the [Sacramento River Settlement Contractors are Good for California](#); or please watch [Changing the Current: A new approach for the Sacramento Valley](#).

Please update your contact information as follows:

Thad Bettner, Executive Director
Sacramento River Settlement Contractors
P.O. Box 150
Willows, CA 95988
thaddeusbettner@gmail.com
530.588.3450

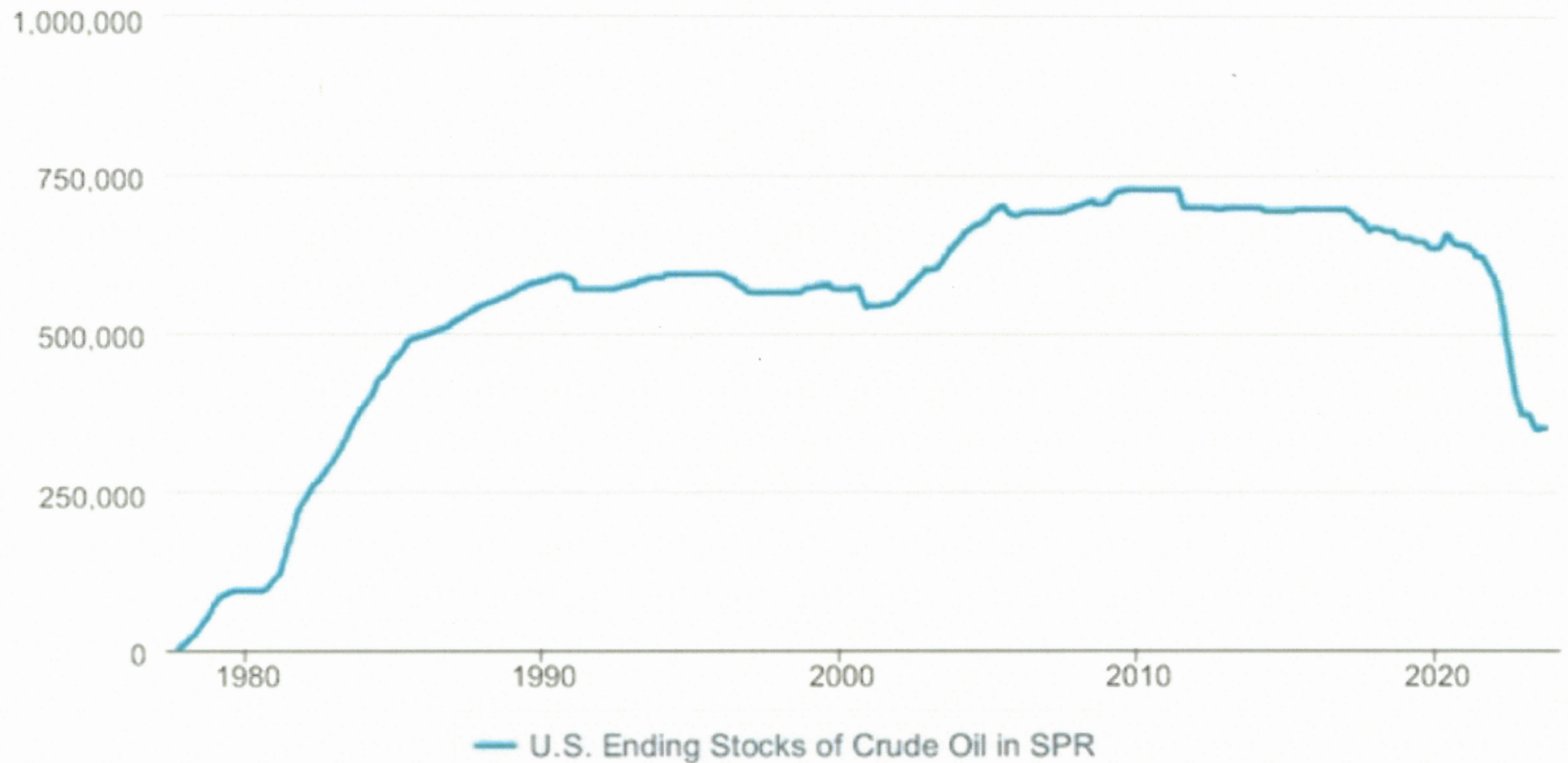
For more information:

Contact Roger Cornwell, Chair of the Sacramento River Settlement Contractors, at rcornwell@sutterbasinwater.com



U.S. Ending Stocks of Crude Oil in SPR

Thousand Barrels



Data source: U.S. Energy Information Administration

Subject: RE: Emergency repair; request for an okay to proceed
Date: Tuesday, January 23, 2024 at 12:31:35 PM Pacific Standard Time
From: [REDACTED]
To: John Roberts, Stewart, Adam M
CC: Jeremy Lor, Jennifer Skupic, Tran, [REDACTED]
Attachments: image002.jpg, image003.png, image004.png, image005.png, image006.png, image007.png

Hi John,

Thanks for the updates on this. Appreciate you outlining the potential risks and precautions taken.

CDFW is accepting of option 2 and repairing the settling of the pipe prior to May 1 when conditions are favorable.

Best,
Dylan Wood
California Department of Fish and Wildlife
Senior Environmental Scientist (Supervisor)
[REDACTED]



From: John Roberts [REDACTED]
Sent: Tuesday, January 23, 2024 9:55 AM
To: [REDACTED] Stewart, Adam M
[REDACTED]
Cc: Jeremy Lor [REDACTED] Jennifer Skupic [REDACTED]; [REDACTED]
[REDACTED]
Subject: Re: Emergency repair; request for an okay to proceed

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Project update.

We still have a request in to the Wildlife Agencies to initiate and complete work on the important Pond K outlet to the Conservancy's BKS tract, its flagship managed marsh complex. However, we wanted to update you and where we are now.

Waiting for a determination by the Wildlife Agencies, we've moved to stabilize the situation. I am happy to share that the land maintenance contractor on the site, Triangle, has notified us that the problem has stabilized. We did this by lowering the water on the large Pond K structure. This took a lot of pressure off the water control structure (remember, it is 20-plus years old). We see

no additional or new erosion. Remember, the key is to avoid compromising the functionality of the managed marsh as well as likely damage to downstream interests if we lose control of impounded water.

Today, I also approved Triangle's recommendation to move rock, gravel and soil to the general vicinity so that if there is sudden damage, we'll have the material immediately on hand to address it.

So the options now look like this:

1. Wait until May 1, the first day the HCPs permit soil disturbance. The downside to this is that GGS on site (there are many, yeah!) will be coming out of brumation when it warms up and days get longer, and they'll be hungry and foraging. The biological effectiveness monitoring scientist on the Conservancy's project has written we need to work towards full water on the preserves early to accommodate this GGS need for foraging as they emerge from brumation. With the water lowered on Pond K to relieve pressure on the impoundment, there is lower water and less areal expanse of water. Meaning we're not achieving the "full functionality" the Wildlife Agencies talked about and emphasized early on.
2. Obtain a waiver from the Wildlife Agencies of the May 1 limit to repair the settling of the pipe leading to the water control structure soonest. We could probably get this accomplished in one day or less. We'll need to bring an excavator in and likely a new pipe. We also need to wait for a break in the weather (from rain), which is not entirely predictable. Of course we'd maximize hand digging to the fullest extent, we'd have a knowledgeable wildlife biologist conduct a briefing and then inspect, and we'd photo-document the entire process to include in the next Implementation Annual Report. The only downside is the possibility that a bromating snake could be harmed or killed, but given this is a high-traffic area (biological monitoring teams, daily, maintenance contractor, daily, water control structure clean-out (from beaver damage) daily), we believe it's unlikely we'll have such an encounter. The positive side to this is that we eliminate the threat of a sudden loss of impounded water, we restore full functionality of the marsh in time for emergence from brumation and we relieve pressure on water movement on the other portions of the marsh which are accepting diverted water.

There is your update.

As always, we appreciate your attention to these matters.

John



[John Roberts](#) | Executive Director
The Natomas Basin Conservancy

Office: 916.649.3331



From: [REDACTED]
Date: Friday, December 29, 2023 at 1:09 PM
To: John Roberts [REDACTED], Stewart, Adam M [REDACTED]
Cc: Jeremy Lor [REDACTED], Jennifer Skupic [REDACTED],
Tran, [REDACTED]
Subject: RE: Emergency repair; request for an okay to proceed

Hi John,

Appreciate you reaching out on this matter and for the helpful decision tree with our various options. Just a few follow ups for you.

For the digging proposal, can you estimate the approximate time needed to accomplish this and equipment needed? Also if you could comment on the type of dry out that might be needed to engage in the full repair. It appears we are getting more into the wet season period where storms are every couple of days (even if some are only minor in intensity).

Best,

Dylan Wood
California Department of Fish and Wildlife
Senior Environmental Scientist (Supervisor)
[REDACTED]



From: John Roberts [REDACTED]
Sent: Friday, December 29, 2023 11:13 AM
To: [REDACTED]; Stewart, Adam M [REDACTED]
Cc: Jeremy Lor [REDACTED], Jennifer Skupic [REDACTED]
Subject: Emergency repair; request for an okay to proceed
Importance: High

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Adam and Dylan:

Sorry for the holiday season request here, but as you know, managing habitat lands doesn't follow the calendar!
;-)

This is a request to okay the Conservancy's proceeding outside the October 1 through May 1 soil disturbance window in order to resolve what is a damaged, possibly leading to catastrophic, water control structure. The property impacted is the Conservancy's Kismat tract, [shown here](#) on the Base Map on the Conservancy's web site as tract #3. It lies in the Sacramento County portion of the Natomas Basin.

This important BKS tract Pond K culvert and water control structure discharges most of the water on the 3380-acre managed marsh complex there. We believe the cause of the break in the seal from the culvert to the concrete water control structure (its "stub") is settling of the downstream water control structure. See attached photos. Our fear is that the settling of the concrete water control structure is not simply soils compaction and settling, but water "subbing" around the facility, undermining the positioning of the structure, thus creating a severing in the seal. This is our early assessment, and the only way for us to know more is to dig. Thus, this request.

It seems our range of options are as follows from our point of view:

1. **Let it go until summer.** On one hand: In waiting, we could have some additional wash out. We could have some compromise to the ability to pass (drive over it as we have for nearly 25 years for maintenance and monitoring purposes) on top of the culvert. More extensive damage could ensue. Doing nothing could unload substantial additional sediment into the afterbay that compromises its ability to regulate water moving off-property and perhaps damage GGS that may be in that immediate vicinity. A greater collapse could also send a high volume of water down stream that could result in claims against the Conservancy by downstream property owners and/or RD1000 and/or Natomas Central Mutual Water Company. Any GGS burrowed in for the winter there could be drowned as a result. (In my opinion, it is unlikely there are GGS burrowed in at that exact location, but there are numerous resident GGS upstream in the Pond K structure itself.) See more on this below as well. On the other hand: waiting could allow us to learn more about the break; perhaps it is more extensive than we can see at present. Or less. We avoid digging around a GGS-habitat water control structure in the unlikely event there are GGS burrowed in for the winter there.
2. **Do a temporary repair for now, maybe using the hand-dig-and-cement-slurry patch.** On the one hand: in doing a quick fix, at least we could reduce chances we have "subbing" that could wash out and jam up the afterbay that we don't know about now. It'd

be a quick way to address the matter. On the other hand: this may disguise something going on that could cause a catastrophic failure, and we'd never know it until it happened. A subbing episode leading to a washout of the massive Pond K structure, where there are known GGS populations in abundance, would not be good. That is, a rapid de-watering of Pond K could cause a surge of water from Pond L (to the north) and Pond J/T (to the east) could be truly devastating to both the functionality of the managed marsh complex there as well as likely do downstream (off-property) damage. Finally, this temporary fix could result in actual additional disturbance if it doesn't work as hoped. If there is failure, we'd have to go in and create still more disturbance in addition to damage clean up, also a disturbance event. Also, this choice means multiple significant disturbances and the NBHCP strongly encourages the Plan Operator (Conservancy) to minimize disturbance (while ensuring full functionality of the marsh complexes to serve their purpose).

3. **Engage in a complete repair, including replacement if necessary.** On one hand, this would have the advantage of "one and done." That is, one disturbance event. The good news is that we have extended the life of the managed marsh complex well beyond what was expected and planned for in the early days of the Conservancy. But structures are reaching the end of their useful life, and it might be best for the Covered Species and the budget to deal with this one time rather than multiple times. On the other hand, working this time of year on such a structure, in wetted soil, is suboptimal. In choosing this option, we'd have to limp along and wait for the first significant break in the winter rain in order to do the work.

Outcome to avoid: in our view, above all, the worst possible outcome is that there is failure in water impoundment resulting in significant damage to the Pond K and surrounding structures (both upstream and downstream), and we have to substantially (but not completely) de-water the entire (and large expanse) Pond K structure until the spring (May) in order to move in heavy equipment to re-construct where damage has been done and then replace the subject water control structure. This would compromise the "full functionality" requirement in the NBHCP and could result in the substantial GGS populations attracted to the property and that have thrived there.

Conservancy request: Can CDFW and USFWS give an emailed okay to proceed to address this break as soon as weather permits and early. Importantly, this means digging outside the October 1 through May 1 no-disturbance window. In our view, this is best addressed early rather than late. Finally, we're pleased that we've only made such requests of the Wildlife Agencies a handful (or less) times in 25 years or so. The facilities have held up extremely well. It is possible the extremely drought of last summer and then that followed by historically very high rains last winter played a part in this situation.

Thanks for whatever consideration you might give this request.

John




[John Roberts](#) | Executive Director

The Natomas Basin Conservancy

Office: 916.649.3331



From: Tony Delcastillo [REDACTED] 
Subject: Illegal Hunting/Trespassing
Date: January 23, 2024 at 1:16 PM
To: [REDACTED]
Cc: Gabe Holleman [REDACTED]



Good afternoon, Keith,

My name is Tony Delcastillo, Operations Supervisor for Reclamation District 1000. We are having some issues with trespassing and illegal hunting/shooting on the Natomas Cross Canal in south Sutter County. The trespassing and target shooting happens year-round and the illegal hunting seems to mostly happen during the time when the different game animals are in season. For example, I received multiple calls this morning about some duck hunters that drove around one of our access gates and down our levee embankment to launch a boat, parked their truck/trailer blocking my access gate and then were going up and down the Cross Canal shooting ducks. This entire area is well posted with no trespassing/hunting/fishing/shooting signs, but the signs get ignored most of the time.

We regularly have crews and/or contractors working in the area, sometimes on a daily basis. My biggest concern is that one of my staff members or contractors working in the area is going to get hurt from the constant random gunfire that goes on up there. My other concern is for our flood control facilities and the damages that these trespassers cause when they decide to go around a locked gate or drive up and down a muddy levee slope to launch a boat.

Is there anyway that CDFW can help with these issues? Maybe with a bigger or more often presence in the area. I ran into the Sutter County Warden this morning, Warden LeBlanc, and made him aware of the problems we are having and also gave him a key to our access gates and told him he can access the area anytime. Is there a number we can call for assistance when we come across these types of situations?

Any help, assistance or suggestions would be greatly appreciated and feel free to reach out anytime!

Thank you,



Tony Del Castillo

Operations Supervisor

Phone: [REDACTED]

Mobile: [REDACTED]

Email: [REDACTED]

1633 Garden Highway

Sacramento, CA 95833

www.rd1000.org



Subject: Re: Illegal Hunting/Trespassing
Date: Tuesday, January 30, 2024 at 8:19:31 AM Pacific Standard Time
From: [REDACTED]
To: Tony Delcastillo
CC: Gabe Holleman, John Roberts, Beals, [REDACTED]
Attachments: image003.png, image003.png

Good Morning Tony

I understand your concerns and I would recommend also getting the sheriff's office onboard with some enforcement out in the area. Unfortunately I don't cover Sutter County. I've cc'd the supervisor for Sutter, Lt. Beals, maybe he can lend some insight on the issue.

Thank You
Keith

Keith Smith
Lieutenant Supervisor
Sacramento and Yolo Counties
[REDACTED]

On Jan 23, 2024, at 1:16PM, Tony Delcastillo [REDACTED] wrote:

You don't often get email from [REDACTED] [Learn why this is important](#)

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Good afternoon, Keith,

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Is there anyway that CDFW can help with these issues? Maybe with a bigger or more often presence in the area. I ran into the Sutter County Warden this morning, Warden LeBlanc, and made him aware of the problems we are having and also gave him a key to our access gates and told him he can access the area anytime. Is there a number we can call for assistance when we come across these types of situations?

Any help, assistance or suggestions would be greatly appreciated and feel free to reach out anytime!

Thank you,

Friday, January 12, 2024 at 15:45:18 Pacific Standard Time

Subject: FW: [EXTERNAL] Re: Lauppe to The Natomas Basin Conservancy Contract Assignments
Date: Friday, January 12, 2024 at 3:44:48 PM Pacific Standard Time
From: Jennifer Skupic
To: Paulina Lu
Attachments: image670257.jpg, image825987.png, image611468.png, image362385.png, image572722.png, image176905.png, image642216.png, image200771.png, image874574.jpg, image179448.png, image144158.png, image070878.png, image532088.png



Jennifer Skupic | Contracts & Compliance Manager
The Natomas Basin Conservancy

Office: 916.649.3331



From: Berens, Jacob J [REDACTED]
Date: Thursday, January 11, 2024 at 6:00 PM
To: Jennifer Skupic [REDACTED]
Subject: Re: [EXTERNAL] Re: Lauppe to The Natomas Basin Conservancy Contract Assignments

Jennifer,

There are still a couple of the missing pieces in the ownership puzzle. However, I've made the argument that we have the ownership information as it sits today and from whom that ownership was transferred to the NBC. It sounds like the Regional Office and Solicitor's Office are going to allow us to proceed with the information we do have.

At this point I have been able to get the environmental compliance completed and I have received concurrences on the draft contracts from 5 out of the 6 offices that need to signoff. Right now, I'm just waiting for concurrence from our Finance Department (*I just sent them an email asking for a status update*). Once I get that, I should be able to mail you the contracts for signing.

Jake Berens
Bureau of Reclamation
[REDACTED]

[REDACTED]

From: Jennifer Skupic [REDACTED]
Sent: Wednesday, January 10, 2024 10:26 AM
To: Berens, Jacob J [REDACTED]
Subject: Re: [EXTERNAL] Re: Lauppe to The Natomas Basin Conservancy Contract Assignments

Jacob,

Any update on moving forward with the documentation we have provided?

Thank you, Jennifer



[Jennifer Skupic](#) | Contracts & Compliance Manager

The Natomas Basin Conservancy

Office: 916.649.3331



From: Berens, Jacob J [REDACTED]
Date: Wednesday, November 29, 2023 at 3:30 PM
To: Jennifer Skupic [REDACTED]
Subject: Re: [EXTERNAL] Re: Lauppe to The Natomas Basin Conservancy Contract Assignments

Jennifer,

It still looks like there are missing pieces. I don't see how Joan Johnson transferred her ownership to the DBJ and JLJ Family Trust, established September 9, 2014, or how the various spouses entered the ownership picture.

However, I'm going to ask the Regional Office if there is any way we can proceed with the documentation we do have. I'll let you know what I find out.

Also, I didn't have any luck with getting a signed copy of the condemnation order. Is that something you can look into?

Thank you.

Jake Berens

Memo



455 Capitol Mall, Suite 300
Sacramento, CA 95814
916.444-7301

Date: January 30, 2024

To: Melanie Saucier (SAFCA), John Bassett (SAFCA), Tony Del Castillo (RD1000), Gabe Holleman (RD1000), Brett Gary (Natomas Mutual Water), Shane Reid (Natomas Mutual Water), John Roberts (TNBC), Jeremy Lor (TNBC), Dave Sills (Sills Ag), Jennifer Burt (GEI), Vance Howard (GEI), Joseph Huang (ESA)

From: Pamela Brillante, Biologist

Subject: **Aquatic Weeds Monitoring Results Memorandum**

INTRODUCTION

This memorandum presents the results of the Natomas Basin aquatic weed monitoring efforts from 2017 to 2023. Formal monitoring of the distribution of aquatic weeds in the basin began in 2014 and methods have changed throughout the years based on monitoring results and stakeholder input. Adaptive monitoring is expected to continue due to changes in aquatic weed abundance, distribution, and response to treatment actions.

METHODS

Target Aquatic Weed Plant Species

An aquatic weed monitoring plan was prepared in October 2016 (SAFCA 2016). The monitoring plan stated that all aquatic weed species would be identified during monitoring activities, where possible, and proposed that the monitoring would include an assessment of the abundance of aquatic weed species that were commonly observed in the Natomas Basin. Target aquatic weed species include both native and nonnative plant species. Data collection initially focused on assessing abundance of the most commonly observed aquatic weed species, but the target species list has been modified throughout the years, including when new aquatic weed species are observed. Pondweed species were determined to be of limited concern to the Basin stakeholders and abundance of these species was noted incidentally but specific species of pondweed were not identified.

Table 1 presents a list of aquatic weed species that were monitored in the basin from 2017 to 2023 (including assessing abundance and/or noting presence or absence) and describes whether they are native or nonnative and their California Invasive Plant Council (Cal-IPC) rating. The Cal-IPC Inventory categorizes plants that threaten California's natural areas as having a high, moderate, or limited ecological impact, and includes plants that currently cause damage in California (invasive plants) as well as "Watch" plants that are a high risk of becoming invasive in the future (Cal-IPC 2020).

Table 1 Target Aquatic Weed Plant Species

Common Name	Scientific Name	Native/Nonnative	Cal-IPC Rating
mosquito fern	<i>Azolla filiculoides</i>	native	not listed
coontail	<i>Ceratophyllum demersum</i>	native	not listed
Brazilian waterweed	<i>Egeria densa</i>	nonnative	high
elodea/common waterweed	<i>Elodea canadensis</i>	native	not listed
duckweed	<i>Lemna</i> ssp.	native	not listed
water primrose	<i>Lugwigia hexapetala</i> , <i>L. peploides</i>	nonnative	high
parrot's feather	<i>Myriophyllum aquaticum</i>	nonnative	high
Eurasian watermilfoil	<i>Myriophyllum spicatum</i>	nonnative	high

Rating Definitions: Cal-IPC

- High** These species have severe ecological impacts on physical processes, plant and animal communities, and vegetation structure. Their reproductive biology and other attributes are conducive to moderate to high rates of dispersal and establishment. Most are widely distributed ecologically.
- Moderate** These species have substantial and apparent—but generally not severe—ecological impacts on physical processes, plant and animal communities, and vegetation structure. Their reproductive biology and other attributes are conducive to moderate to high rates of dispersal, though establishment is generally dependent upon ecological disturbance. Ecological amplitude and distribution may range from limited to widespread.
- Limited** These species are invasive, but their ecological impacts are minor on a statewide level or there was not enough information to justify a higher score. Their reproductive biology and other attributes result in low to moderate rates of invasiveness. Ecological amplitude and distribution are generally limited, but these species may be locally persistent and problematic.
- Eval – No Listing** Some plants were categorized as Evaluated But Not Listed because either we lack sufficient information to assign a rating or the available information indicates that the species does not have significant impacts at the present time.

Abundance Monitoring

The 2016 aquatic weed monitoring plan established a standardized monitoring protocol consisting of bi-annual (spring and fall) sampling at 40 point locations at major aquatic features throughout the Basin. Most years a stakeholder annual management meeting was held to review the sampling locations and sampling frequency and timing. Revisions to the sampling locations, and to the frequency and timing of sampling, are sometimes made based on input from SAFCA and the Basin stakeholders. Five sampling locations have been eliminated since the monitoring plan was prepared because aquatic weeds were not observed over several sampling events at these locations or because of accessibility issues. Sampling frequency was also decreased after 2018 from two sampling events per year to only one sampling event. In 2023, an additional sampling location (location #42) was added at Pond R in the Natomas Basin Conservancy's BKS Reserve. A high abundance of aquatic weeds was noted at this marsh during incidental field observations of the reserve, so the sampling location was added to the abundance monitoring to track the abundance of aquatic weeds in this area of the Basin. There were no other sampling locations near this area prior to this location being added. A map of the 36 sampling locations sampled from 2019 to 2023 is included in Attachment A. Abundance sampling was conducted on March 29-31 and May 16-18, 2017, August 29 and December 26, 2018, July 31, 2019, August 24 and 25, 2020, July 7, 2021, June 14, 2022, and August 1-2, 2023. Initially, abundance sampling was conducted before and after treatments to try to determine if treatments reduced aquatic weed abundance. However, treatments often occur at different times of the year at different sampling locations, and it was difficult to time sampling to occur before and after treatments in a single year. Therefore, starting in 2019, sampling frequency was reduced to one

sampling event generally timed to capture the peak abundance of aquatic weeds (June to August). This allows for comparison of aquatic weed abundance between years.

Sampling was conducted by using a thatch rake on an extension pole or rope to collect aquatic weeds at each sampling point three times. Abundance was assessed at each point location by visually scanning all areas of the aquatic feature that were visible from each point location. Overall abundance and abundance of each target aquatic weed species was rated as none, low, medium, or high. If the aquatic feature was dry at the time of the survey, this was recorded in place of an abundance estimate. Abundance estimates were recorded for five of the target species: Eurasian watermilfoil (*Myriophyllum spicatum*), coontail (*Ceratophyllum demersum*), water primrose (*Ludwigia* spp.), Brazilian waterweed (*Egeria densa*), and common waterweed (*Elodea canadensis*). Abundance of pondweed species collectively or any new species was recorded under an "other" category. New aquatic weed species observed were noted and identified to species, if possible. Presence or absence of mosquito fern and duckweed was also recorded on the datasheet, but abundance estimates for these two species were not recorded. Overall abundance was estimated based only on the five target weed species and does not include abundance estimates for "other" aquatic weed species, mosquito fern, or duckweed. Abundance estimates of high, medium, and low were converted to cover classes and the midpoint of each cover class was then used to calculate average percent cover overall and for each of the five target species.

Biomass Monitoring

Aquatic weed biomass monitoring was conducted concurrently with abundance monitoring. Target aquatic weed species for the biomass monitoring consist of Eurasian watermilfoil, coontail, water primrose, and Brazilian waterweed. The target species list was developed based on a Cal-IPC rating of having a high ecological impact (Eurasian milfoil, water primrose, and Brazilian waterweed), and stakeholder input. Five sampling features were picked for the biomass monitoring: North Drainage Canal, GGS/Drainage Canal, Upper Elkhorn Canal, Managed Marsh, and Northern Main Canal. These locations are representative of an average abundance of aquatic weeds over time (i.e., in the past, these areas have had variable abundances of aquatic weeds that average out to medium abundance) and therefore changes in abundance should be easier to detect in these areas. Each of these features is represented by 2 to 5 subsampling locations. These subsampling locations are the same as the sampling locations used for the abundance monitoring.

At each subsampling location, biomass sampling was conducted by using a thatch rake on an extension pole or rope to collect aquatic weeds three times. The aquatic weeds were then separated by species and non-target species were discarded. Each target species was placed in a mesh bag or similar, one at a time, and allowed to drain water for approximately 5 minutes. Each target species was then transferred to a bucket and weighed. The weight of the target species was recorded to the nearest hundredth of a pound. The scale was tared prior to weighing the sample or the bucket weight was recorded and subtracted from the weight of the target species biomass. This process was repeated for each target species.

RESULTS

Abundance Monitoring

Figure 1 presents the results of the aquatic weed abundance monitoring from 2017 to 2023. Abundance sampling took place twice in 2017 and 2018; however, average abundance was calculated only from the sampling event that most closely resembled the timing of sampling in 2019 through 2023. Therefore,

abundance estimates from the sampling events from May 2017 and August 2018 were used to calculate the average abundance estimates shown in Figure 1. Overall abundance, and abundance of the five target species are shown on the graph. Overall abundance slightly increased to a similar level with 18.4 percent cover of aquatic plants in 2023 compared to 17.6 percent cover in 2022.

Although parrot's feather is not a target species for abundance monitoring because it has only been observed in one location in the eastern portion of the Natomas Basin, this species is monitored from year to year because it has a high potential to spread into adjacent water bodies. The location where this aquatic weed has been observed in years prior is a canal parallel to the Pleasant Grove Cross Canal and south of Fifield Road. During the 2022 monitoring, this canal was dry with senesced parrot's feather covering the bed of the canal. This sampling location could not be sampled during 2023 monitoring because construction in the area prevented access. However, a few small parrot's feather plants were observed at a different sampling location in 2023. The Sankey and 99 drain (3R) on the north side of Sankey Road, was observed to have low water and approximately 3 parrot's feather plants on August 2, 2023. However, the exact number of plants could not be determined.

Biomass Monitoring

The results of the aquatic weeds biomass monitoring from 2019 to 2023 are presented in bar and line graph formats. Figure 2 presents the 2019 to 2023 results in a bar graph. Figures 3 through 7 show the results of each of the five sampling features on a line graph. The line graphs also include callout boxes detailing what, if any, treatment(s) occurred between sampling events. Overall abundance, and abundance of the four target species are shown on the graphs.

DISCUSSION

Basin-wide, average abundance overall of the five target aquatic weed species peaked in 2018 but has dropped since then, with the lowest abundance and biomass values to date observed in 2022 (Figure 1). Eurasian watermilfoil, Brazilian waterweed, and common waterweed have remained at low abundance estimates basin-wide since monitoring began. Brazilian waterweed has not been collected in biomass sampling since that sampling effort began in 2019. Eurasian watermilfoil and common waterweed appear to have responded to treatments in 2018 and decreased in basin-wide abundance the following year. However, a slight upward trend in abundance was observed starting in 2020 and 2021 but dropped in 2022 and remained similar in 2023 (Figure 1). Of the five locations where biomass sampling is conducted, the managed marsh and northern main locations had trace amounts of Eurasian watermilfoil in 2023 (Figures 2 and 7).

Coontail abundance decreased basin-wide from 2018 to 2023, with only a slight increase observed in 2021. (Figure 1). Water primrose abundance peaked basin-wide in 2019 and continued to decrease until 2022 but increased slightly in 2023 (Figure 1). Abundances of coontail and water primrose in the North Drainage Canal increased substantially after 2019, decreased sharply in 2022, and increased slightly again in 2023 (Figures 2 and 3). However, in the managed marsh, coontail and water primrose abundances decreased substantially since 2019 and have remained at very low abundances since (Figures 2 and 5). Water primrose has also decreased in the Northern Main Canal since 2019 (Figures 2 and 7).

Treatments that occur in the Northern Main Canal in late summer or fall appear to have had mixed results on aquatic weed abundance depending on the aquatic weed species (Figure 7). A treatment conducted in June 2020 may have assisted with a substantial decrease in abundance of water primrose a couple months later and water primrose was last observed in trace amounts at this site in 2021. However, Eurasian watermilfoil increased slightly in abundance from 2019 to 2021 regardless of treatments, but dropped substantially in 2022 and remained very low in 2023. Continued treatments over time likely contributed to the drop in Eurasian watermilfoil observed in 2022 and 2023.

Treatments in the North Drainage Canal appear to be assisting in reducing aquatic weed abundance of coontail and water primrose (Figure 3). These species peaked in 2020, declined in 2021 and 2022, and showed minor increases in 2023. A follow up treatment occurred in August/September 2023, after the monitoring event was conducted in early August 2023.

In general, treatments appear to influence aquatic weed abundance differently depending both on location and aquatic weed species and have been variable across space and time such that clear trends between specific treatments and aquatic weed abundances are not evident. However, two repeat treatments as opposed to one treatment appear to be more successful at reducing aquatic weed abundance. Timing of treatment also appears to play a role in how successful treatments are at reducing aquatic weed abundance: spring or summer treatments appear to reduce aquatic weed abundance more than fall treatments alone. Overall, the continued aquatic weed treatments appear to be keeping aquatic weeds at low abundances compared to 2018 and 2019, when the target aquatic weeds peaked in abundance.

References

California Invasive Plant Council. 2020. The Cal-IPC Inventory. Available: <https://www.cal-ipc.org/plants/inventory/>. Accessed October 2020.

Sacramento Area Flood Control Agency. 2016. Proposed Monitoring Plan and Scope of Work for Aquatic Weed Monitoring in the Natomas Basin. Prepared by AECOM. Sacramento, CA.

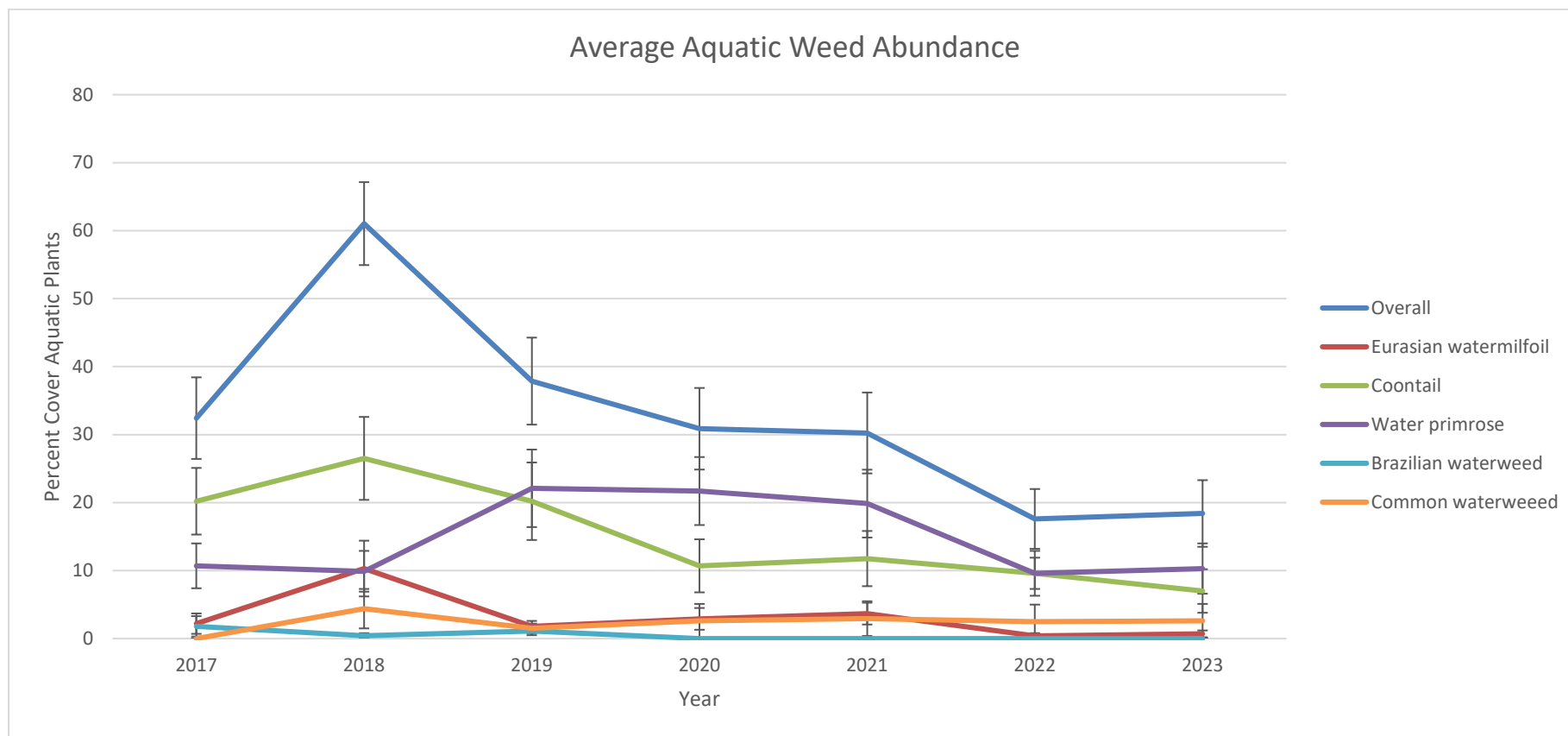
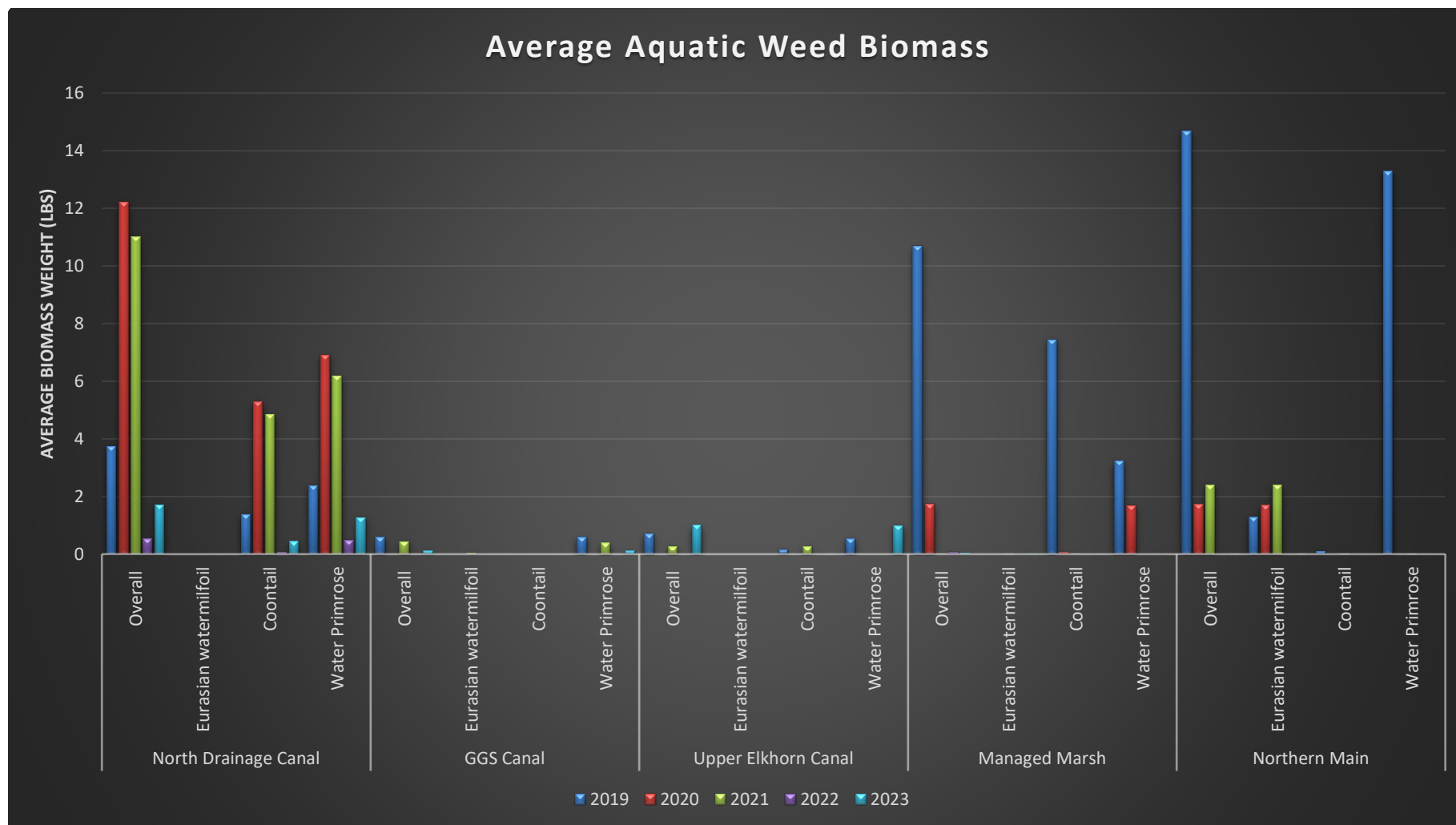
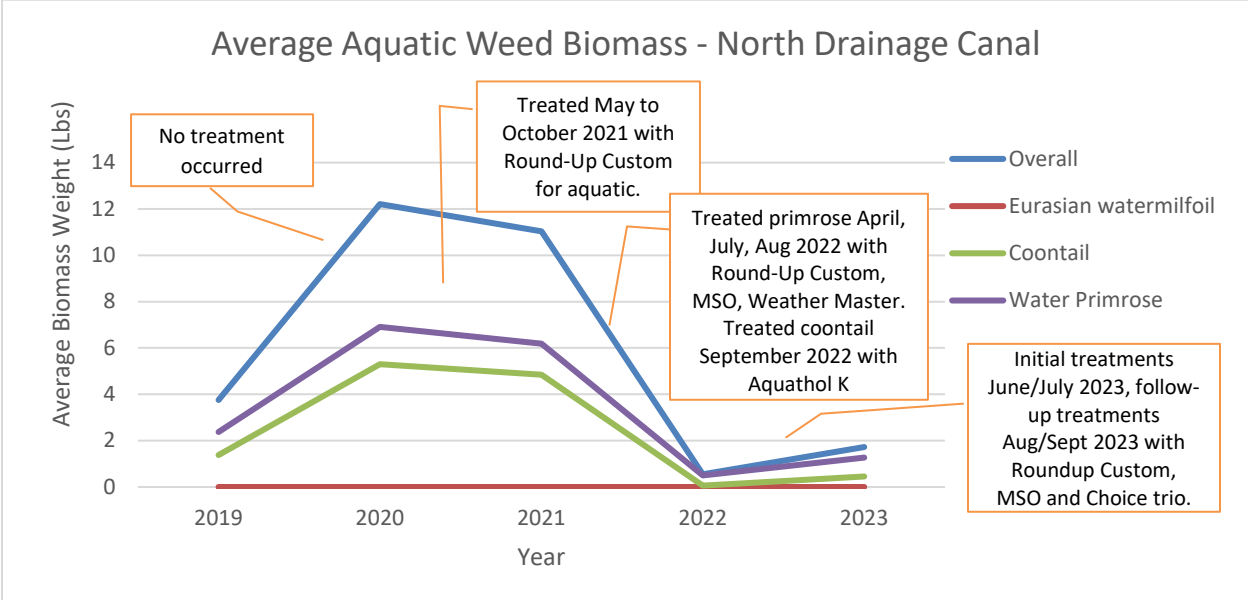


Figure 1 Average aquatic weed abundance in the Natomas Basin from 2017 to 2023



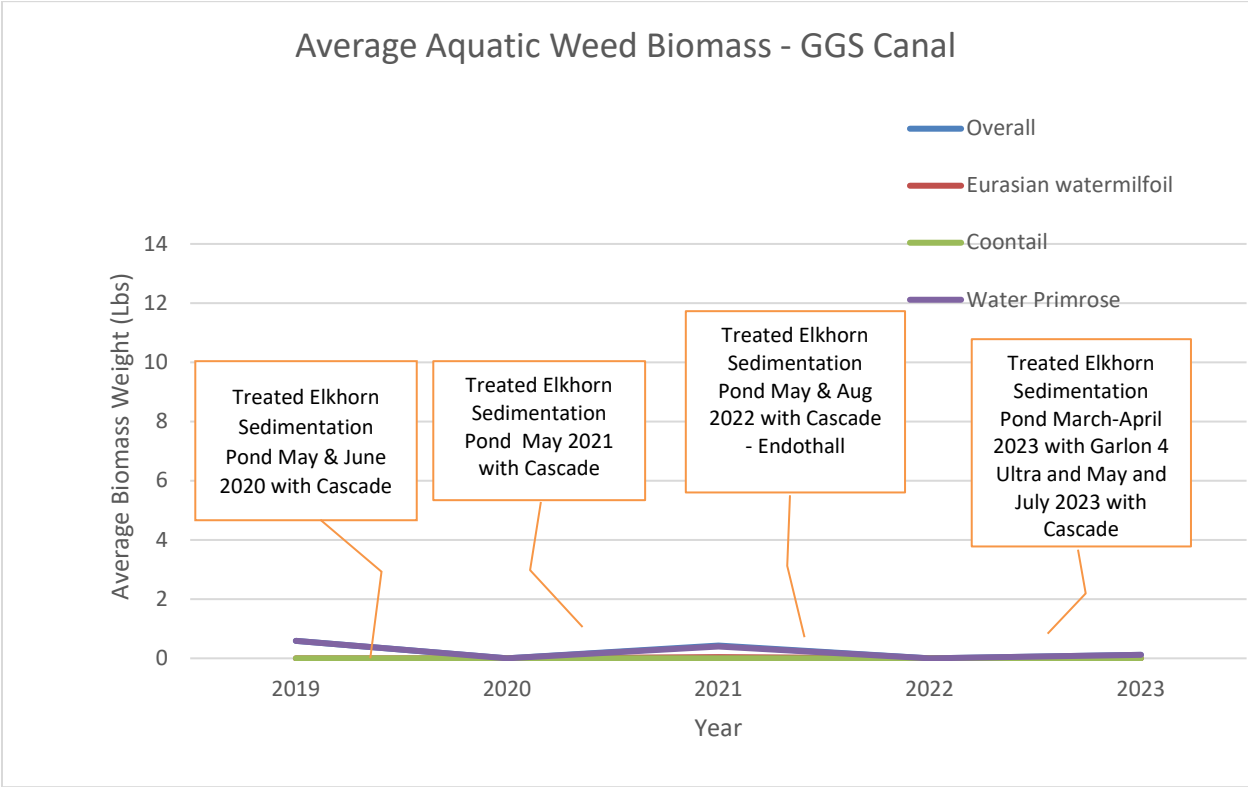
Note: Brazilian waterweed not encountered at biomass sampling locations from 2019 to 2023

Figure 2 Average aquatic weed biomass in the Natomas Basin from 2019 to 2023



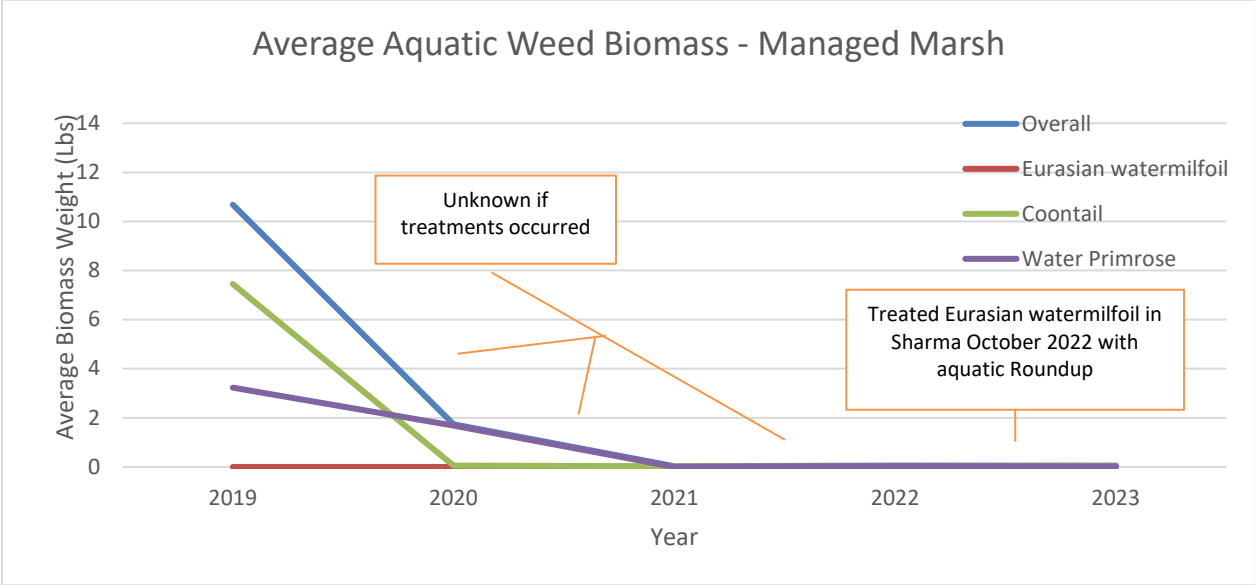
Note: Brazilian waterweed not encountered at the North Drainage Canal from 2019 to 2023

Figure 3 Average aquatic weed biomass in the North Drainage Canal from 2019 to 2023



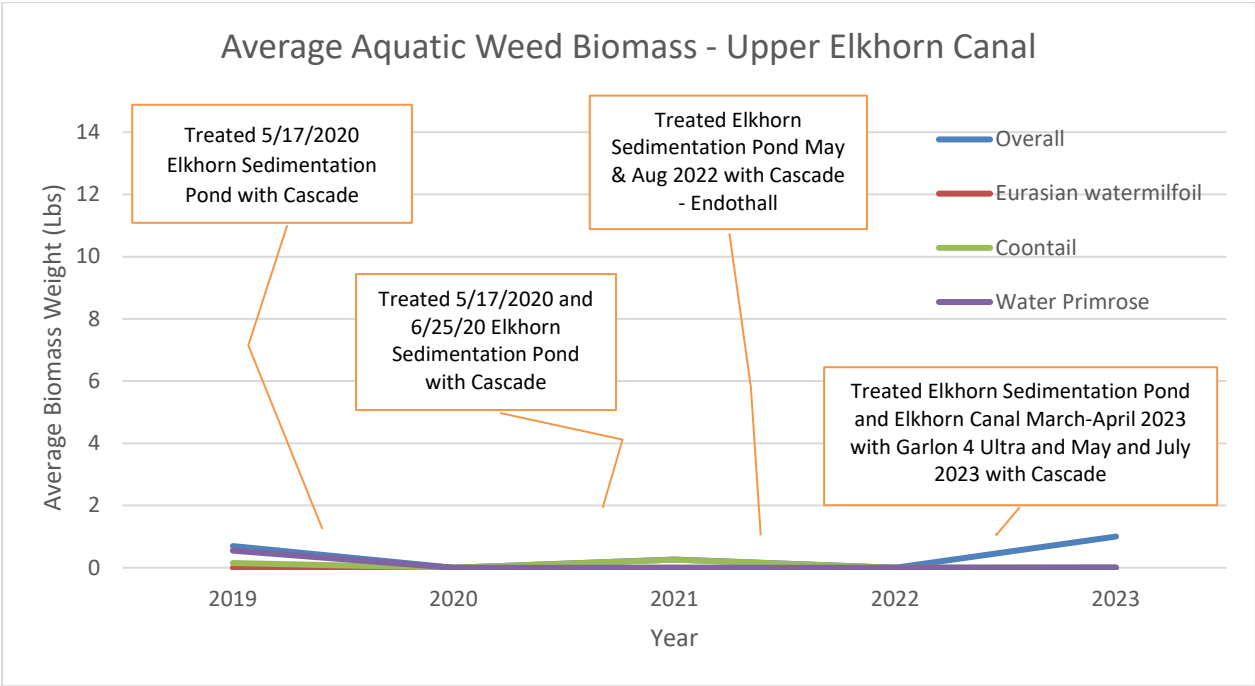
Note: Brazilian waterweed not encountered at the GGS Canal from 2019 to 2023

Figure 4 Average aquatic weed biomass in the GGS/Drainage Canal from 2019 to 2023



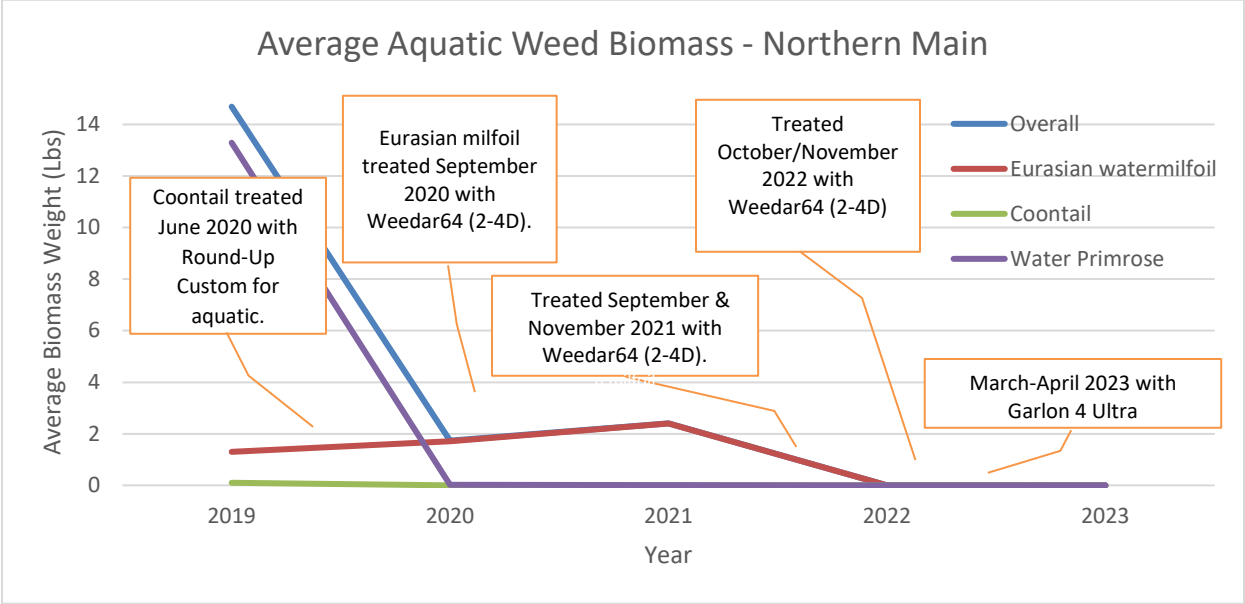
Note: Brazilian waterweed not encountered at the managed marsh from 2019 to 2023

Figure 5 Average aquatic weed biomass in the Managed Marsh from 2019 to 2023



Note: Brazilian waterweed not encountered at the Upper Elkhorn Canal from 2019 to 2023

Figure 6 Average aquatic weed biomass in the Upper Elkhorn Canal from 2019 to 2023

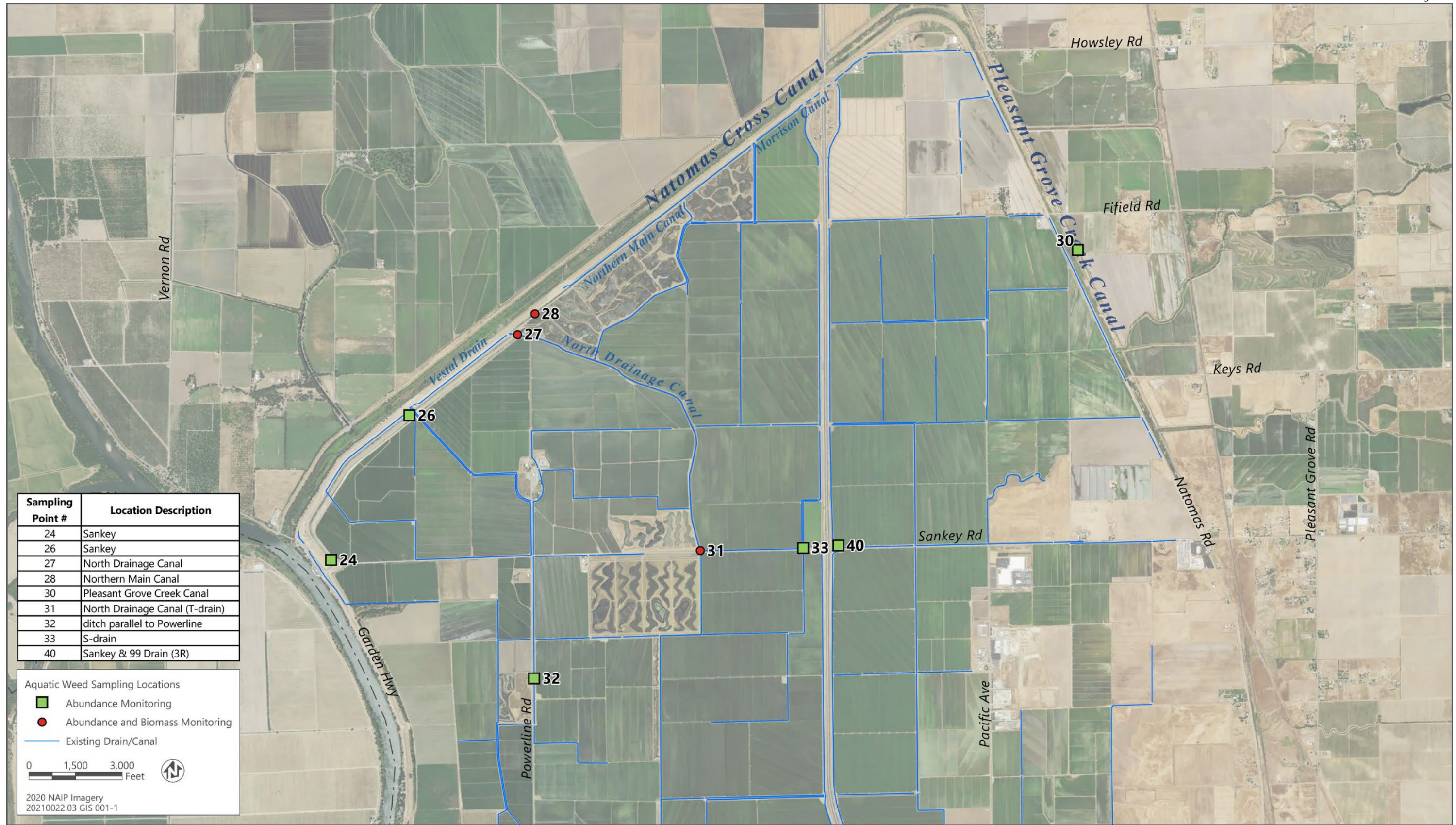


Note: Brazilian waterweed not encountered at the Northern Main Canal from 2019 to 2023

Figure 7 Average aquatic weed biomass in the Northern Main Canal from 2019 to 2023

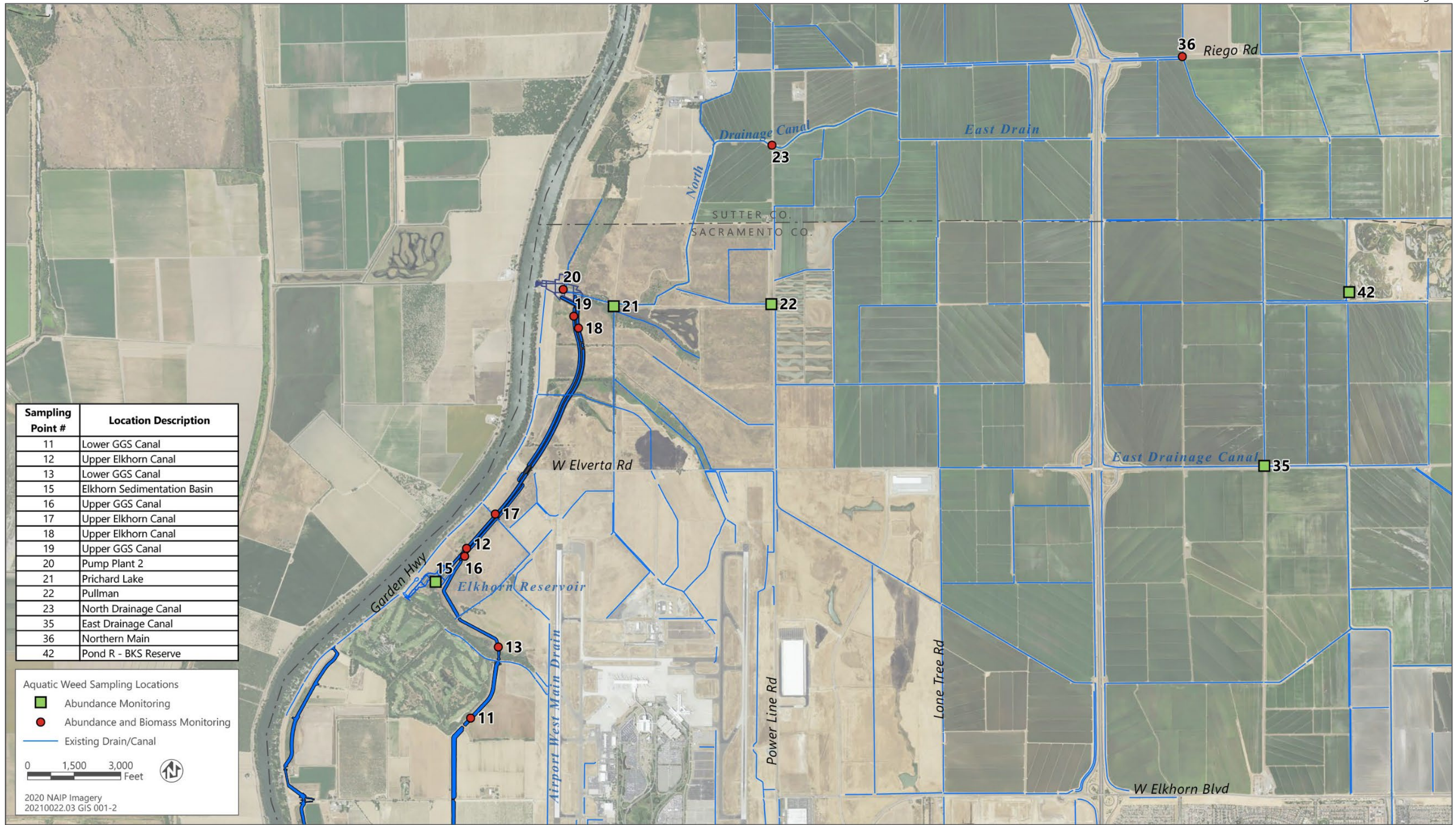
Attachment A

Sampling Locations Map



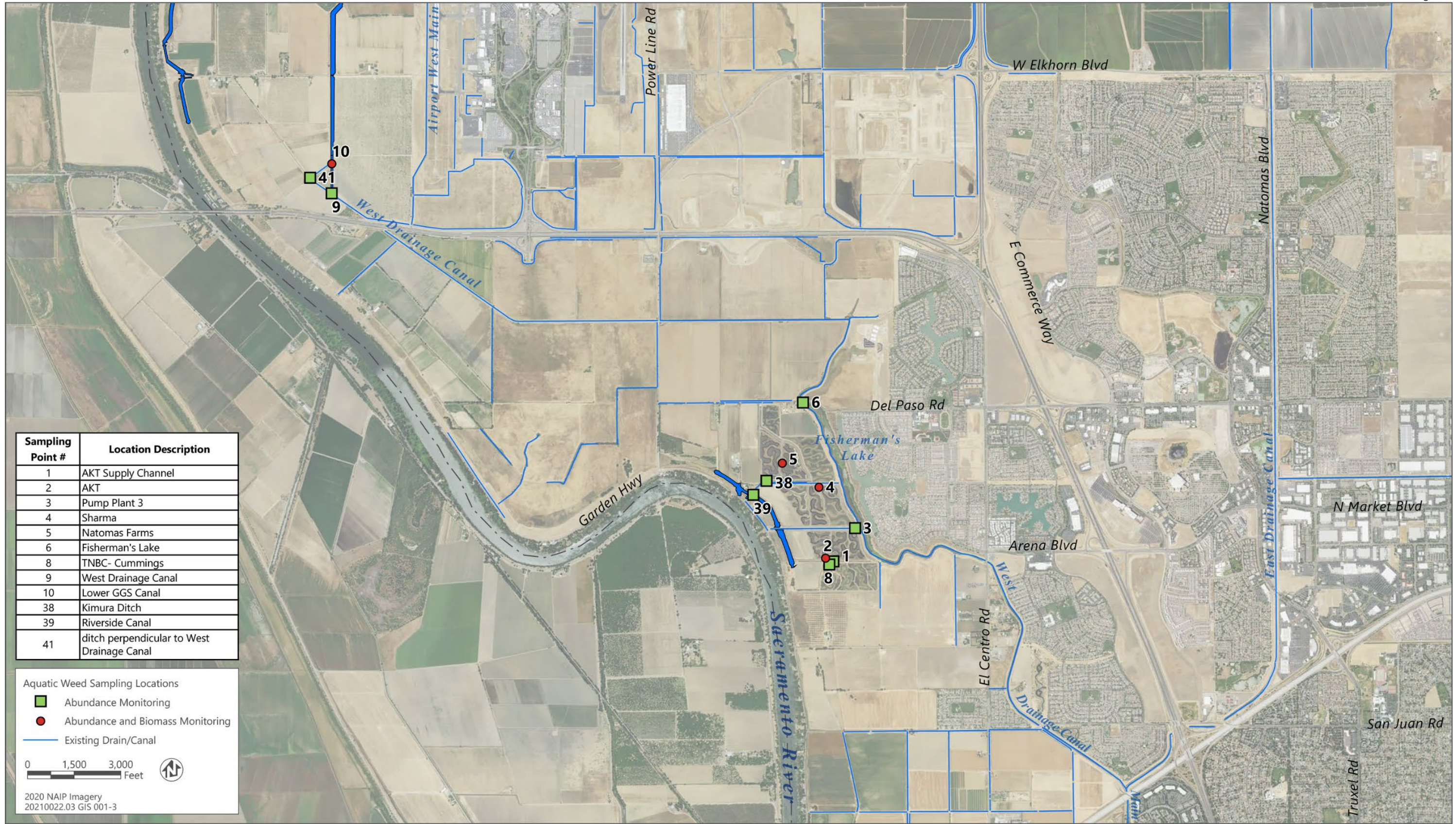
Source: Data provided by AECOM in 2018; updated by Ascent 2023

Aquatic Weed Sampling Locations – Map 1



Source: Data provided by AECOM in 2018; updated by Ascent 2023

Aquatic Weed Sampling Locations – Map 2



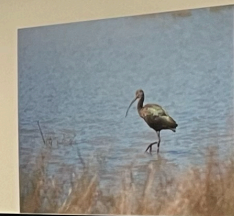
Source: Data provided by AECOM in 2018; updated by Ascent 2023

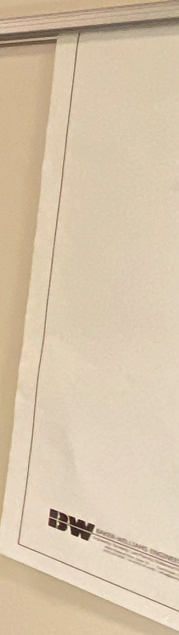
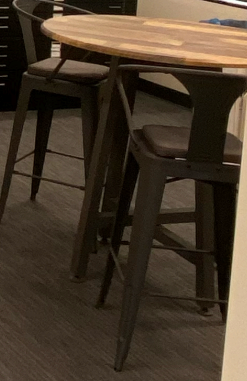
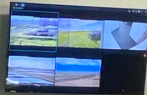
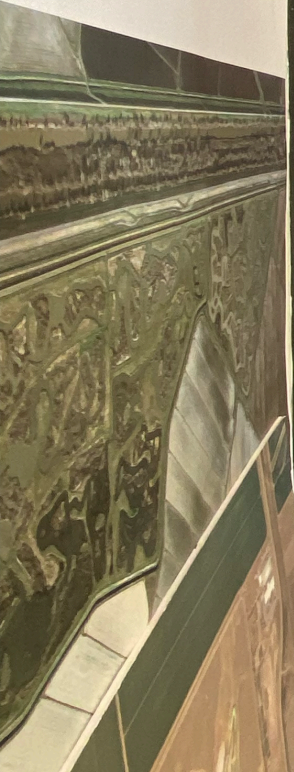
Aquatic Weed Sampling Locations – Map 3

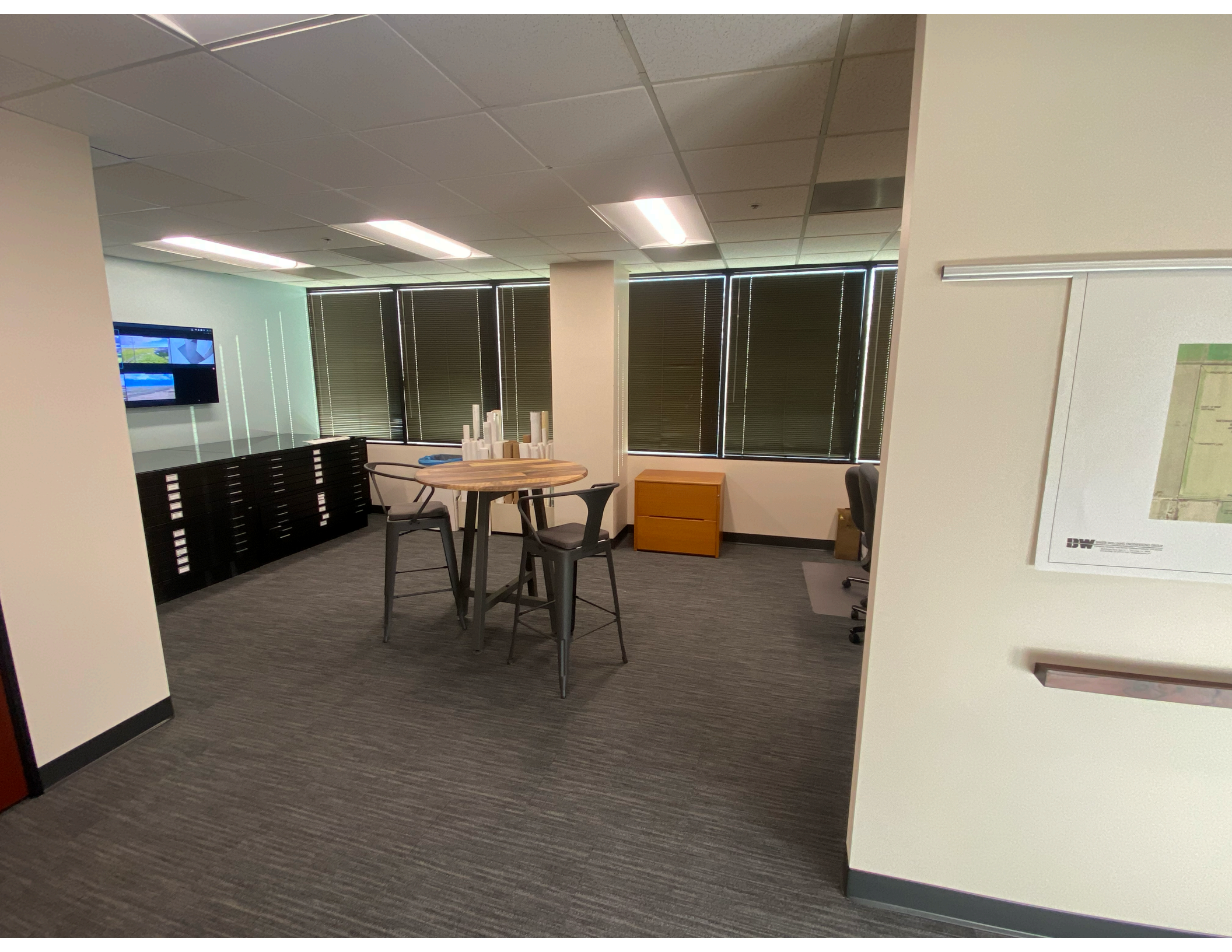
EXIT



THE NATOMAS BASIN CONSERVANCY









December 13, 2023

Chandra Chilmakuri, Chair, Board of Directors
David Christophel, Board Member
Melinda Bradbury, Board Member
John Roberts, Executive Director

Natomas Basin Conservancy
2150 River Plaza Drive, Suite 460
Sacramento, CA 95833

Subject: Withdrawal of August 7, 2023, Memorandum from Doug Leslie

Dear Mr. Chilmakuri, Mr. Christophel, Mrs. Bradbury, and Mr. Roberts:

This letter formally withdraws as an official ICF report or project communication the memorandum that was sent by Doug Leslie to this group on August 7, 2023, regarding the Natomas Basin Conservancy's (Conservancy) management of its conservation lands in the Natomas Basin.

ICF's analysis, findings, and recommendations regarding the management of Conservancy lands will be conveyed to the Conservancy in the 2023 Effectiveness Monitoring Report that is due by April 1, 2024, per our current contract with the Conservancy.

The Conservancy and the Wildlife Agencies (U.S. Fish and Wildlife Service and California Department of Fish and Wildlife) can continue to rely on ICF's Biological Effectiveness Monitoring Report as an accurate reporting of the results of the effectiveness monitoring program, and with constructive recommendations for how the Conservancy can continue to manage its lands successfully.

We look forward to continuing to work positively with the Conservancy and its staff to fulfill its mission.

Sincerely,

A handwritten signature in black ink, appearing to read "Christopher C. Elliott".

Christopher C. Elliott
Senior Vice President

A handwritten signature in blue ink, appearing to read "David Zippin".

David Zippin, Ph.D.
Senior Vice President

cc:

Christine Tramontano, Assistant General Counsel, ICF
Ethan Walsh, Counsel for Natomas Basin Conservancy

Subject: FW: 12/12/23 Meeting Follow up
Date: Wednesday, December 13, 2023 at 1:40:04 PM Pacific Standard Time
From: John Roberts [REDACTED]
To: Kimberli Burns [REDACTED], Jennifer Skupic
[REDACTED]
Attachments: image001.jpg, image258843.jpg, image963318.png, image805225.png, image583927.png, image404087.png

See this.

John

John Roberts | Executive Director
The Natomas Basin Conservancy

Office: 916.649.3331

From: Zippin, David [REDACTED]
Date: Wednesday, December 13, 2023 at 12:28 PM
To: John Roberts [REDACTED]
Cc: Yonge, Steve [REDACTED]
Subject: 12/12/23 Meeting Follow up

Hi John,

Thank you again for you, Kim, and Jennifer taking the time to meet with Steve and I in person yesterday at your office. We very much appreciated your clear and detailed agenda and the open and productive discussion.

Steve and I are already working on follow up items. In the meantime, I wanted to send you a draft list of the action items that we heard and recorded, to make sure they align with your expectations. Please review and provide any feedback you might have. Steve or I will follow up with you on each item individually as needed.

Action items:

1. ICF will add language to the forthcoming withdrawal letter that will be sent to the Conservancy and its Board to state that the wildlife agencies can continue to rely on ICF's annual reports as accurate. – DONE. Sent 12/13/23.
2. ICF will investigate the Conservancy's observation that no ICF team staff visited Conservancy preserves between the end of July and Dec. 4, and report back.
3. ICF will ensure that Doug Leslie will have no communication with any Conservancy staff.

4. ICF will review the July 2023 and August 2023 invoice to determine whether any hours were related to Doug Leslie's time writing the August letter or subsequent and related phone calls or emails. If that is the case, ICF will remove those hours and resubmit revised invoices.
5. ICF will submit draft contract amendment request to replace Doug Leslie as project manager on contract with Steve Yonge
6. ICF confirmed new mid-year report to Board in October 2024 (1st Wednesday, which is Oct. 2) in addition to typical annual report in April/May.
7. Conservancy now has authorization to communicate directly with subs Brian Halsted and Jim Estep, as needed, as long as Steve Yonge is copied on all emails and participates in any phone calls. ICF will notify Brian and Jim of this new communication approach.
8. Steve to review and revise small mammal study report and resubmit to Conservancy for their review.
9. Steve/David to propose approach and schedule to reviewing ICF's draft management recommendations prior to the final Biological Effectiveness Monitoring Annual Report due April 1, 2024. Approach will include a meeting with Conservancy staff to discuss preliminary recommendations.
10. Steve to confirm delivery date for Biological Effectiveness Monitoring Program Document
11. Steve/John: Arrange all-day field visit to Conservancy preserves in early 2023 with Steve Yonge and maybe David Zippin.

Thanks,
David

David Zippin, PhD, Senior Vice President and Practice Leader
Habitat Conservation Planning and Implementation

[LinkedIn](#) | [icf.com](#) | [Practice](#) | [Bio](#)

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