

EL DORADO IRRIGATION DISTRICT

SUBJECT: Update on the El Dorado Irrigation District's invasive mussel monitoring and prevention efforts.

PREVIOUS BOARD ACTION

February 24, 2025 – Staff presented an Information Item to the Board providing an overview of the District's invasive mussel monitoring and prevention efforts.

BOARD POLICIES (BP), ADMINISTRATIVE REGULATIONS (AR) AND BOARD AUTHORITY

BP 0010 District Mission Statement

BP 5010 Water Supply Management

SUMMARY OF ISSUE

Regional water managers are taking additional actions—such as implementing vessel launching restrictions and quarantine periods—to prevent the introduction of invasive mussels (specifically golden mussels) into reservoirs and water infrastructure. In response, beginning on April 21, 2025, the District will implement similar vessel launching restrictions at Jenkinson Lake, located within Sly Park Recreation Area (SPRA) in Pollock Pines. These restrictions are necessary due to anticipated increased use at SPRA by out-of-area boaters seeking unrestricted waterways, which increases the risk of invasive mussels' introduction to District facilities. This information item provides the Board with an update on the District's invasive mussel prevention program (Program) and related developing issues. Further updates will be provided as the Program continues to be refined and additional efforts are implemented in partnership with regional water managers to protect drinking water supplies.

BACKGROUND/DISCUSSION

Invasive mussels are non-native species introduced into California ecosystems. Golden mussels, recently detected in the Sacramento-San Joaquin Delta (Delta), are of particular concern due to their ability to survive in a wide range of environmental conditions—including waters with lower calcium levels—and reproduce rapidly. These traits pose a serious threat to freshwater ecosystems by disrupting food webs and to water infrastructure by clogging intakes and treatment facilities.

A primary pathway for the spread of this species is the unintentional transport of invasive mussels on or in ships, boats, and similar floating vessels, including recreational watercraft. In response, more local, state, and federal water managers in the Delta region are restricting boat launching access as information about the distribution of this species and mechanisms for spread continues to emerge.

Measures being implemented by various water managers in the region to limit the spread of mussels include temporary closures suspending all vessel launching, requirements for valid inspection and decontamination prior to launching, and/or reservoir-specific quarantine periods where vessels are tagged and not allowed to launch for a period of 30 to 60 days, depending on vessel configuration. The quarantine period aims to prevent the spread of invasive mussels by ensuring any potential mussels or their larvae present on the vessel die off before the vessel is allowed to launch.

Previously, Nevada Irrigation District implemented interim full closures of their facilities earlier this year. Most recently, California State Parks (State Parks) and the U.S. Bureau of Reclamation (Reclamation) announced boating restrictions at Folsom Lake and Lake Clementine. The increased regulation of nearby waterways has the anticipated effect of redirecting recreationists seeking unrestricted waterways such as SPRA. Additional out-of-area boaters may elevate the risk to District water supplies and can easily overwhelm early-season park staffing.

Although District-operated waterbodies have a reduced level of vulnerability to the introduction of invasive mussels, given the new restrictions at Folsom Lake, staff believe it is necessary to immediately implement similar boating restrictions at SPRA in order to protect the critical infrastructure at the District's primary water supply reservoir. Staff anticipates that the boating restrictions at Folsom Lake and other area reservoirs significantly increase the probability that boaters searching for unrestricted boating opportunities will travel to SPRA from areas potentially infested with golden mussels. This potential increase in out-of-area boaters increases the risk of introduction of invasive mussels to SPRA because when a vessel is moved from one waterbody to another without proper cleaning, draining, and drying, there is an increased risk of carrying live invasive mussels from one reservoir to another.

An additional concern is the ability to safely handle any disproportionate use of SPRA while closures are in place elsewhere in the region. Folsom Lake supports a high volume of boating activity, and SPRA's proximity as one of the nearest alternatives with motorized boating opportunities presents a real risk of overwhelming staff and SPRA capacity. Implementing preventative measures at SPRA will now allow the District to manage demand while better-protecting water supplies.

SPRA Boating Restrictions

Although control measures of the Program are anticipated to continue to be adapted as regional managers refine their efforts to prevent the spread of the invasive mussels and partners learn of successes and challenges in their respective programs, initial measures for the District's Program are summarized below.

The District will implement the following restrictions for all trailered or motorized boats and sailboats:

- Limit vessel launching access to watercraft with an intact decontamination seal and receipt from an approved inspection/decontamination station;
- Require a 30-day mandatory quarantine period for boaters who wish to launch their vessel at SPRA without taking their vessel to an approved inspection/decontamination station (quarantine protocol described below);
- Provide vessel seals to allow vessels that last launched at SPRA to re-enter SPRA without any additional quarantine period if the seal remains intact (vessels launching just prior to the beginning of quarantine measures on April 21 will be subjected to a quarantine period as discussed further below); and
- Non-motorized vessels (e.g., kayaks, canoes, paddleboards) are not subject to the decontamination or quarantine and seal protocol if determined to be clean, drained, and dry.

Quarantine Protocol

District staff will apply the quarantine seals. To accommodate demand, seals will initially be provided at both District Headquarters in Placerville and at SPRA in Pollock Pines to maximize the number of vessels that can undergo their 30-day mandatory quarantine period prior to the

peak use season. After the initial Program rollout, the Headquarters site will be deactivated while seals will continue to be offered at SPRA. The two-color seal system includes red and blue tags labeled "EID" with a unique serial number. Red seals indicate the watercraft is undergoing the mandatory 30-day quarantine prior to launching at SPRA. After 30 days, the watercraft may launch. After launching is allowed and a vessel has launched at SPRA, prior to leaving, boaters can have a blue seal applied to identify that their vessel was last launched at SPRA and, therefore, does not require any additional quarantine period prior to re-entering SPRA if the seal remains intact. If the vessel is launched at another lake (which would require removal of the blue seal) or the seal is otherwise removed, the vessel will either need a new red seal and undergo another 30-day quarantine or be inspected at an approved decontamination station (to be identified as the Program develops) and display an intact seal from that station.

Timeline

- April 14, 2025 – initiate public outreach campaign as described below
- April 15, 2025 – initiate vessel tagging protocol to apply mandatory quarantine seals to boats that wish to launch at SPRA after April 20, 2025
- April 19, 2025 – SPRA mooring facility opens
 - Slip holders that can moor their boat by April 20 will not be required to quarantine their vessel prior to launch
- April 21, 2025 – Implement vessel launch restrictions at SPRA requiring either District-installed tag and 30-day quarantine or inspection from approved inspection/decontamination station and intact seal from that station

Public Education and Outreach

Following the Board meeting, staff will issue a news release to all regional media outlets to raise awareness about the new measures to protect District water supplies. Staff will also be directly contacting all boating season pass holders, mooring facility permittees, and other anticipated user groups, including summer camping reservation holders, to inform them of these initial measures and request that they follow the District website for additional details as the Program continues to be refined in partnership with regional water managers. A dedicated webpage will launch by April 14, 2025, and be regularly updated as the Program evolves. Staff will also carry out a robust public outreach campaign via multiple social media platforms to ensure as many potential customers as possible are contacted.

FUNDING

Staff is currently evaluating the implementation costs of the Program and will adjust the vessel launching fees, as appropriate, to ensure those costs to implement the Program are borne by those requiring its implementation. Staff will seek any potential grant funding opportunities that may arise.

BOARD OPTIONS

None – Information only.

RECOMMENDATION

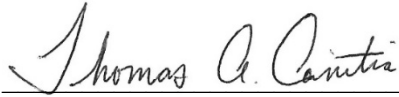
None – Information only

ATTACHMENTS

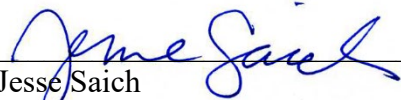
None



Brian Deason
Environmental Resources Supervisor



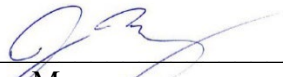
for
Emily Bertram
Parks and Recreation Manager



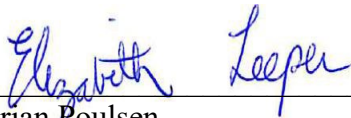
Jesse Saich
Communication and Media Relations Manager



Dan Corcoran
Operations Director



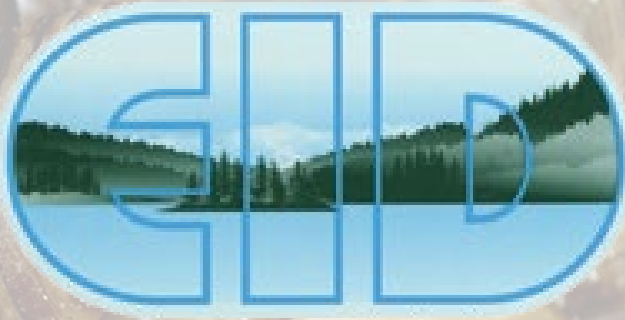
Jon Money
Engineering Director



for
Brian Poulsen
General Counsel



Jim Abercrombie
General Manager



Invasive Mussel Prevention Update

April 14, 2025

Summary of Issue

- Regional water managers taking additional actions to prevent introduction of invasive golden mussels into reservoirs and water infrastructure facilities
 - Implementing vessel launching restrictions and quarantine periods
- Beginning on April 21, 2025, the District will implement similar vessel launching restrictions at Jenkinson Lake located within Sly Park Recreation Area (SPRA)
 - Anticipated increased use at SPRA by out-of-area boaters seeking unrestricted waterways
 - Increases risk of invasive mussels introduction to District facilities



Invasive Mussels



Invasive mussels are non-native species that have been introduced into freshwater ecosystems in California



Source: Department of Water Resources



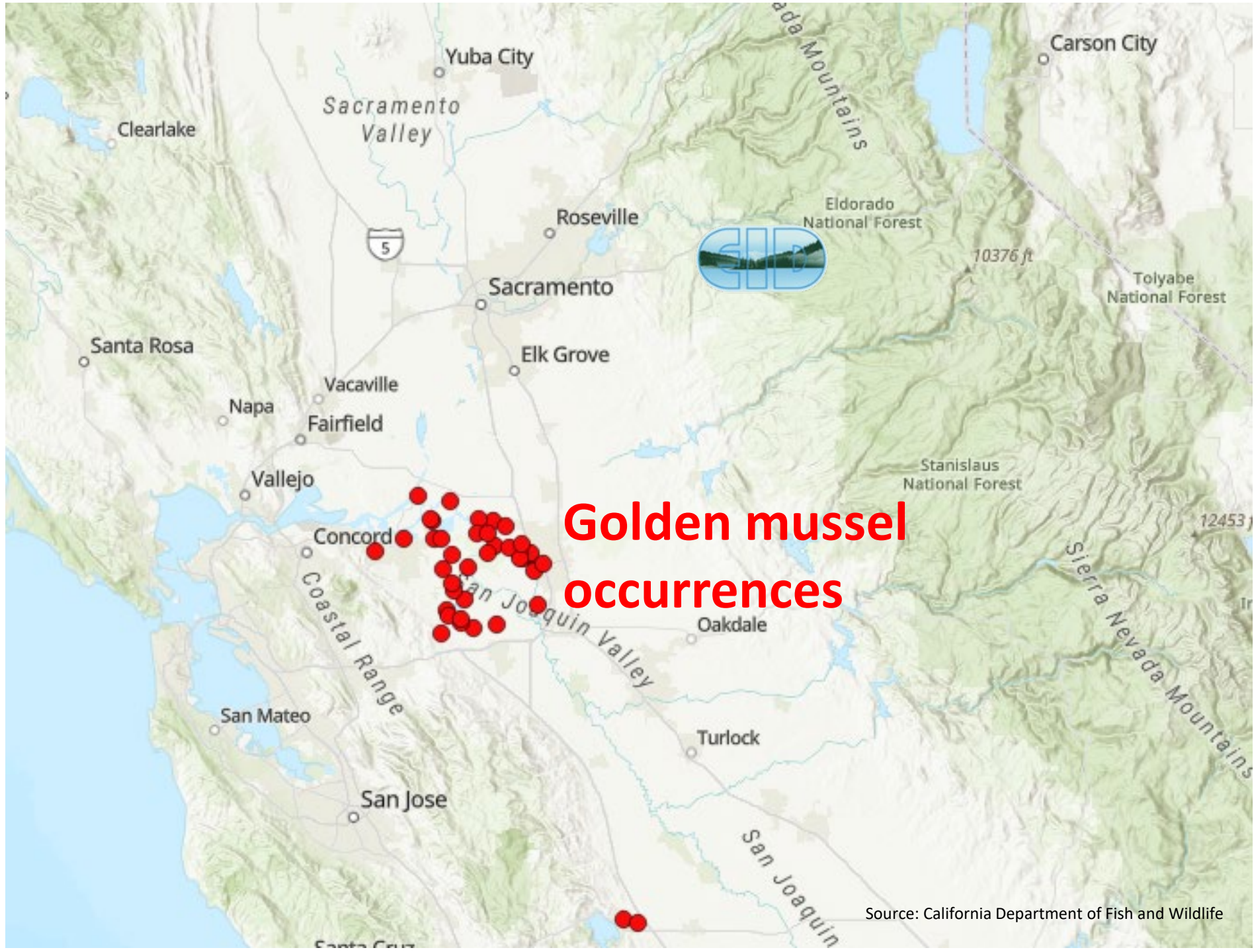
What are the Threats?

- Clog water infrastructure intakes, pipelines, and treatment facilities
- Damage vessel engines, bilges, and live wells
- Disrupt ecosystems by altering food webs



San Justo Reservoir boat ramp on 10/10/2010. Photo by Ken W. Davis





Source: California Department of Fish and Wildlife

Pathway for Spread

- Primary pathway that facilitates the spread of golden mussels includes the unintentional transport on, or in, ships, boats, and other vessels including recreational watercraft
- More local, state, and federal water managers in the Delta region are restricting vessel launching access as additional information regarding the distribution of this species and mechanisms for spread continue to emerge



Regional vessel Launching Restrictions

- Temporary closures suspending all vessel launching
- Requirements for valid inspection and decontamination prior to launching
- Quarantine periods where vessels are tagged and not allowed to launch for a period of time
 - Quarantine to ensure potential mussels die off

The mussel has not been detected in EBMUD reservoirs. To prevent spread, all boat launches are closed until further notice.

Nevada Irrigation District Mussel Prevention Program

Help keep ROLLINS AND SCOTTS FLAT RESERVOIRS MUSSEL FREE by cooperating with NID's new boat seal program.

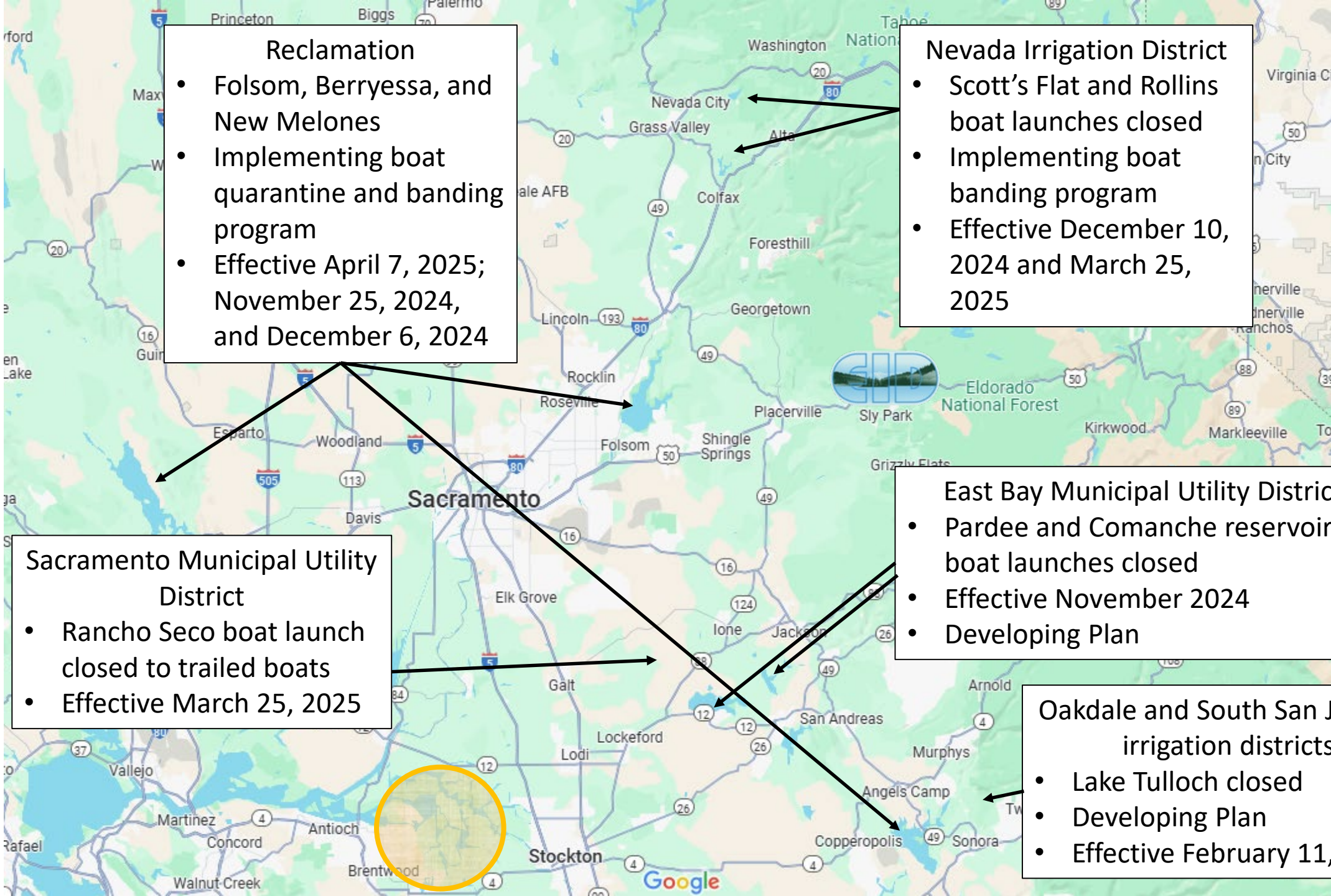
New Melones Lake temporarily suspends boat launches to prevent invasive mussels



Recent Actions

- On April 7, 2025, California State Parks and U.S. Bureau of Reclamation announced boating restrictions at Folsom Lake and Lake Clementine
 - Restrictions to take effect April 14, 2025
 - Significant action with anticipated effect of redirecting recreationists to other areas seeking unrestricted waterways
 - Increases risk to EID water supplies and potential to overwhelm early season staff and SPRA capacity





Reclamation

- Folsom, Berryessa, and New Melones
- Implementing boat quarantine and banding program
- Effective April 7, 2025; November 25, 2024, and December 6, 2024

Nevada Irrigation District

- Scott's Flat and Rollins boat launches closed
- Implementing boat banding program
- Effective December 10, 2024 and March 25, 2025

Sacramento Municipal Utility District

- Rancho Seco boat launch closed to trailed boats
- Effective March 25, 2025

East Bay Municipal Utility District

- Pardee and Comanche reservoirs boat launches closed
- Effective November 2024
- Developing Plan

Oakdale and South San Joaquin irrigation districts

- Lake Tulloch closed
- Developing Plan
- Effective February 11, 2025

District Waterbodies

- Overall, waterbodies operated by District have reduced level of vulnerability to introduction of invasive mussels
- Regional boating restrictions greatly increases exposure to boaters searching for unrestricted boating opportunities
 - Travel to SPRA from areas infested with golden mussels
- Necessary to implement boating restrictions at SPRA
 - Goal to protect District's critical infrastructure and primary water supply reservoir



Additional Factors Requiring Implementation

- Ability to safely handle any disproportionate use of SPRA during closures elsewhere in greater region
 - High volume of boating activity at Folsom Lake
 - High potential for low early season staffing to be overwhelmed by redirected boaters
- Implementing similar or equal measures at SPRA
 - Manage demand similar to normal levels
 - Prioritize protection of water supplies versus unrestricted access



SPRA Boating Restrictions

- Trailered or motorized boats and sailboats
 - Limit access to watercraft with an intact decontamination seal and receipt from an approved decontamination station or have completed 30-day mandatory quarantine period with District tag
 - Following initial quarantine or intact decontamination seal, provide vessel departing SPRA with District seals
 - Allow reentry without any additional quarantine if seal remains intact

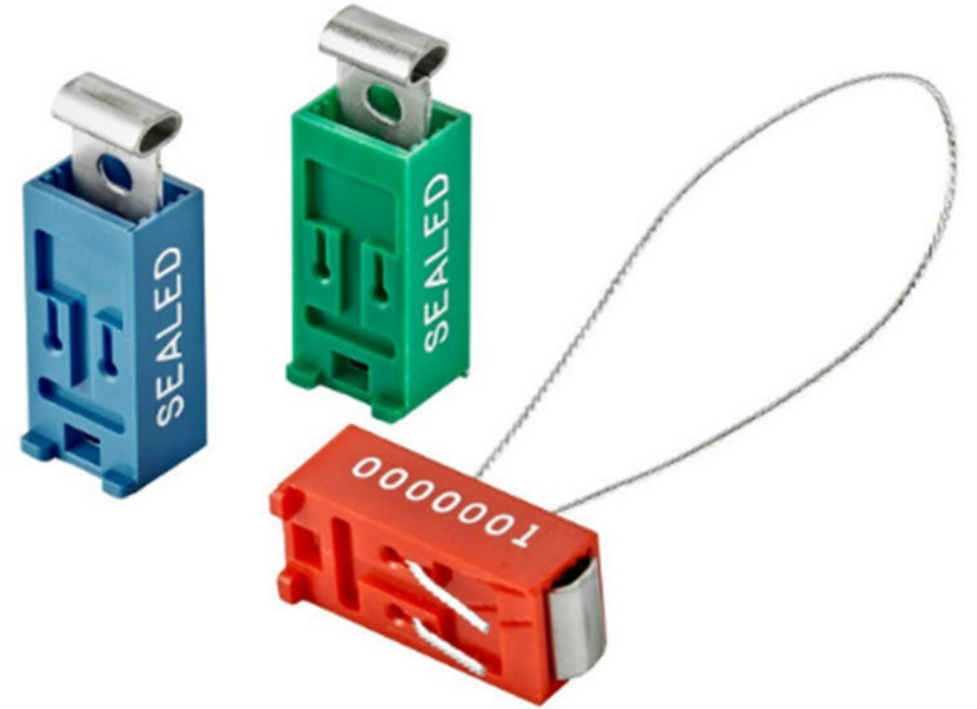


SPRA Boating Restrictions

- Non-motorized vessels (e.g., kayaks, canoes, paddleboards)
 - Not subject to the decontamination or quarantine and seal protocol if determined to be clean, drained, and dry



Vessel seals for quarantine and re-entry



Quarantine Protocol

- District staff will apply quarantine seals
 - To accommodate initial demand, seals will be provided at both District Headquarters in Placerville and at SPRA in Pollock Pines, thereafter at SPRA
- Red and blue colored seals labeled “EID” with a unique serial number
- Red seals
 - Indicate watercraft is undergoing the mandatory 30-day quarantine prior to launching at SPRA; watercraft may launch after 30-days with intact seal
- Blues seals
 - Prior to leaving SPRA, boaters can have blue seal applied to identify vessel was last launched at SPRA
 - Do not require any additional quarantine prior to reentry if seal remains intact

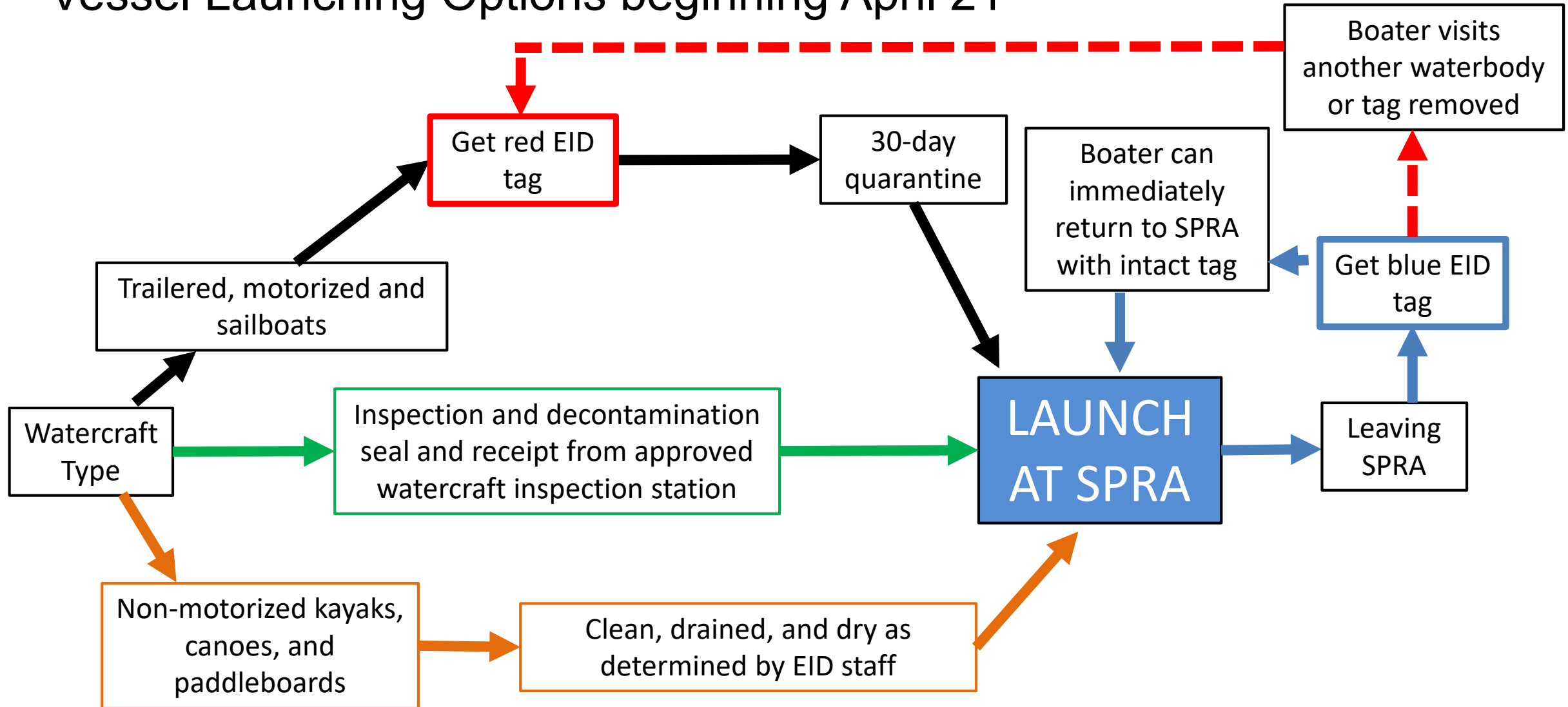


Quarantine Protocol

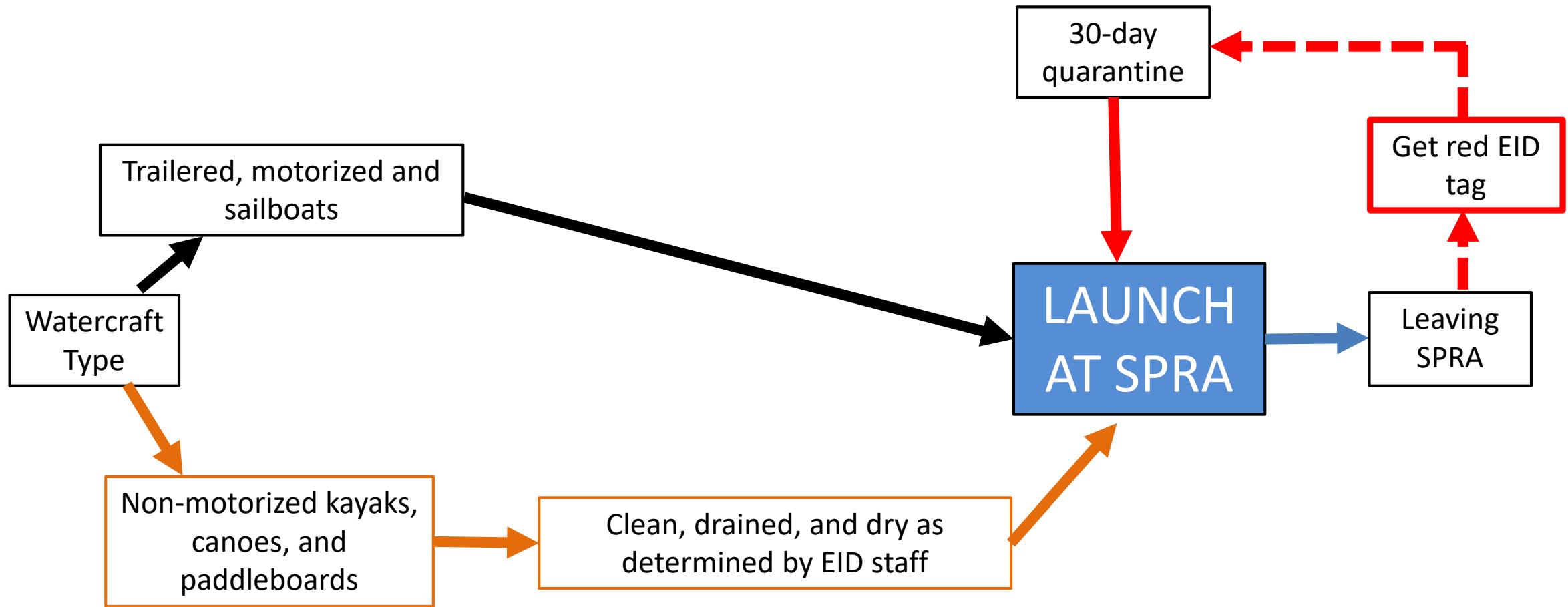
- If boater chooses to go to another lake, which will result in removal of the tag
 - Subject to another mandatory 30-day quarantine that will begin after new red seal installed by District; or
 - Undergo inspection at approved inspection and decontamination station and possess an intact seal from that station



Vessel Launching Options beginning April 21



Vessel Launching Options April 14 – 20



Timeline

- April 14 – Initiate public outreach campaign
- April 15 – Initiate vessel tagging protocol to apply mandatory quarantine seals to vessels that wish to launch after April 20 at SPRA
- April 19 – SPRA mooring facility opens for season; slip holders that can moor their vessel by April 20 will not be required to quarantine their vessel prior to launch
- April 21 – Implement vessel launch restrictions at SPRA requiring either District-installed tag and 30-day quarantine or intact seal from approved inspection and decontamination station



Public Education and Outreach

- Staff will issue a news release to all regional media outlets to raise awareness about the new measures to protect District water supplies
- Direct contact to SPRA users
 - Boating season pass holders
 - Mooring facility permittees
 - Summer camping reservation holders
- Inform users of initial measures and request that they follow the District's dedicated webpage for additional details
- Embark on a significant public outreach campaign via multiple social media platforms



Funding

- Staff is currently evaluating implementation costs
- Will adjust the vessel launching fees as appropriate to ensure costs to implement program are borne by those requiring implementation
- Staff will seek any potential grant funding opportunities that may arise



Future Updates

- Further updates will be provided as additional efforts are implemented in partnership with regional water managers to protect drinking water supplies



Questions/Comments



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