

Friends of Standley Lake Interim Solutions for 2019 Season

Update prepared for:
Standley Lake Boating Task Force



**TASK
FORCE**

Agenda

- Existing System Gaps
 - Tagging 2.0 Overview
 - Interim Solution Recommendations for 2019 Season
 - Get to a known safe state
 - Implement Tagging 2.0
 - Additional layers of protection
 - Question/Answer
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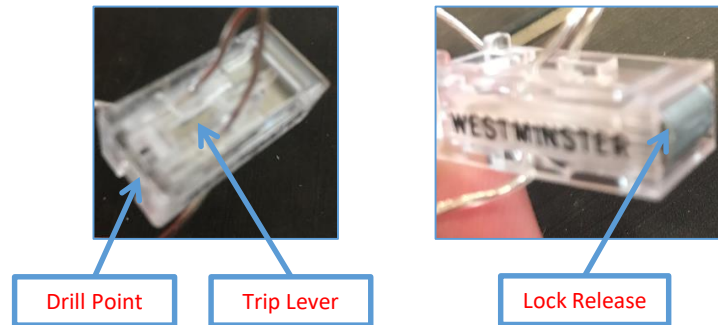
2018 Tagging System Gaps

Attaching Tags To Removable Locations



The universal tagging location of the front D-Ring (point of boat that straps to trailer) is easily defeated. All boaters with a crescent wrench are able to bypass this system should they desire to violate ZQM protocol. Removing the D-Ring allows the boat owner to launch on another body of water without cutting the cable and is the weakest mechanical point in prevention.

Using Only One Locking Mechanism and Not Inspecting For Tampering



The 2018 methods also exposed risk with the tag itself. A simple web search will lead to videos of how to circumvent this tag, yet most tampering can be detected with proper training. It is unknown to the public if any nuts were tampered with, but the 2018 process did not include an inspection of the nut prior to removal. This tampering method is less ideal as there is more risk of leaving evidence if not performed perfectly. Lastly, the removal of this tag was entrusted to seasonal employees that are the lowest paid and least trained of the park staff.

Tagging 2.0 Constructs – 1 of 2

- Leashing

- Objective Statements:

- Utilize the integrity of a boat's hull to provide a simple to execute, yet flexible, attach point for the leashing wire on the boat
 - Assume welded trailer rails are safe for 99+% of trailers. A thru-rail plan could be implemented for corner cases (same concept as through-hull)
 - Leashing wire would create a non-removable connection between the boat's hull and the trailer rail (once tagged and swaged)

- Implementation Options

- Require all boats to implement an approved through-hull tagging location at rear of vessel
 - Single-Hole Through-Hull with 3" anodized ring option (reusable upon re-inspection) OR
 - Dual Hole Loop-back option
 - Inspect/mark approved leashing point(s) during emissions inspections
 - Dealers have volunteered to help with installs and approval/inspection/labeling
 - Possibly add photography layer by SL Pass Number for forensics (options)

Tagging 2.0 Constructs – 2 of 2

- Tagging/Swaging

- Objective Statements:

- Add security layers to the existing Clear Tag system/process to protect from known weaknesses in tag system when used stand-alone
 - Use lead/aluminum swage/seal on one or both sides of the SL Clear Tag
 - Requires a change to uncoated stainless wire for swage/seal compatibility
 - Apply a tamper-proof tape strip to the flat surface of Clear Tag to insure stainless tab can't be removed

- Implementation Options

- Phase in Standley Lake customization in the swage/seal crimping tool (vendor has option)
 - Phase in Standley Lake custom tape rolls (length/width and SL graphic branding)
 - Company can also add serial numbering or barcoding upon request (could align to Clear Tag#)
 - Catalog all removed tags by date for forensics later
 - Possibly add photography layer for additional forensics and tracking



Tagging 2.0 Logistics



- Approved Through-Hull Locations - Costs/Purchasing
 - 3" anodized ring – These are used in mountaineering. They are readily available on open market. Light anodized finish is recommended to exposed tampering (cutting/welding). They can be reused with inspection. Standley should supply and control. Cost is \$3-\$8 each. Price should be added to a 2019 Security Fee added to pass
 - Boat grommets, loop-backs, etc – Must be in an approved location, must be approved for compatibility with 3" rings. FOSL would volunteer to author a v1 Tagging 2.0 Boater's Implementation Manual
 - Tagging Location Marker – would suggest a small waterproof vinyl sticker (1"x1") for consistency – Can be printed locally - <\$0.01/each
 - Paper form for approval of tagging locations to travel with emissions



Tagging 2.0 Logistics

- Tagging/Swaging - Costs/Purchasing

- Lead/aluminum swage/seal on one or both sides of the SL Clear Tag
- Apply a tamper-proof tape strip to the flat surface of Clear Tag to insure stainless tab can't be removed

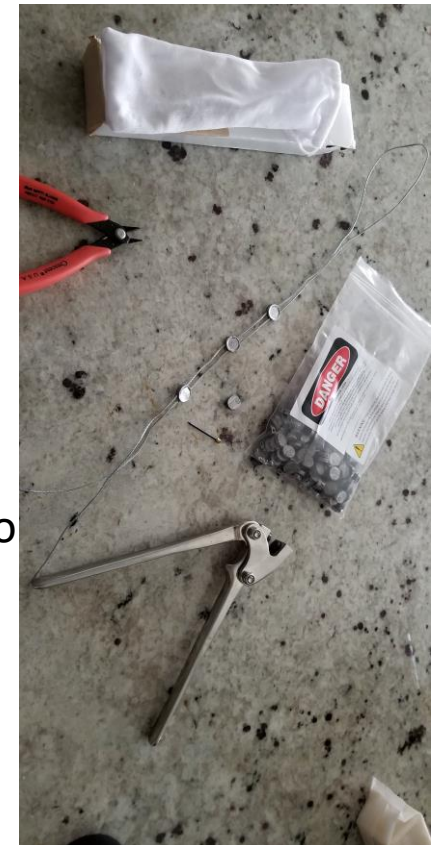
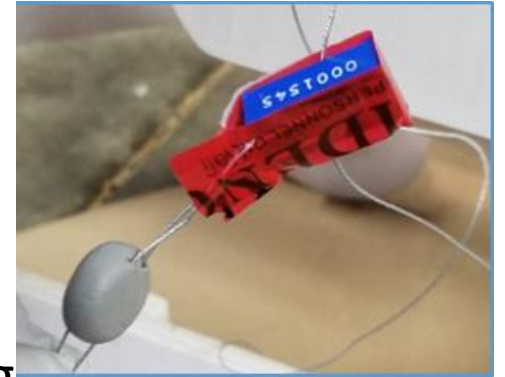
- Phased approach

- Phase 1

- Requires a change to uncoated stainless wire for swage/seal compatibility
 - Standard swage/seal crimping tool is readily available – Cost \$59 each
 - Swage/seals are generic, readily available - Cost \$39/1000 \$0.038/each
 - Tamper-proof Tape, readily available – 300ft - \$45/roll \$0.018/each

- Phase 2

- Crimping tool supports custom pressure cups for branding, Lead-time 3 weeks from order, Cost ~\$40/tool
 - Custom branded and sized tamper-proof tape, Lead-time 3 weeks from order. Very close to general pricing
 - Company could also add serial numbering or barcoding upon request (could be aligned to Clear Tag#)



Tagging 2.0 Extra Layers of Security

- Add Colorado ANS WID Mobile Software check before Launch
- Weekly cross-functional review of tagging process, happenings, inspection of tags, etc throughout the 2019 season. FOSL would volunteer committee representative(s).
- Do security testing occasionally. Test process with ranger inserted tampered elements, possibly CL# SW data triggers
- Investigate adding photo tracing into process (at various steps)

2019 Interim Plan Steps

- Plan for getting all boats to a known ANS state for start of 2019
 - Suggestions/Options
 - Schedule Standley Lake Decontamination/Inspections and use Tagging 2.0 process
 - Must deal with different time for ballast boats and others - Ballast boats would need the Colorado WID procedures
 - Charge for decontamination (simple \$xx, complex \$yy)
 - Study/discuss if there might be a way to leverage State of Colorado ANS Decontamination stations to help the Standley Lake backlog? Always require Tagging 2.0 to be live in the SL system
 - Develop a timeline such that boaters wanting to get aligned with any decontamination/quarantine requirements can do so as soon as possible – possibly before all systems are in place. Force Tagging 2.0 Phase 1
 - Implement a Pro-rated Boating Pass Plan
 - Implement a Security Fee on top of pro-rated pass system

Next Steps

- Tagging 2.0 Hands-on Boat Demo – May 2, 2019
 - Bring boats of multiple types (v-drive, Inboard/Outboard, Outboard, smaller fishing boat, pontoon)
 - Demo/inspect current tagging process
 - Demo/inspect Tagging 2.0 process
- Release “Interim Solution Recommendation Report to SLBT – May 2, 2019
 - Get to a known safe state
 - Implement Tagging 2.0
 - Additional layers of protection

Thank you for your time

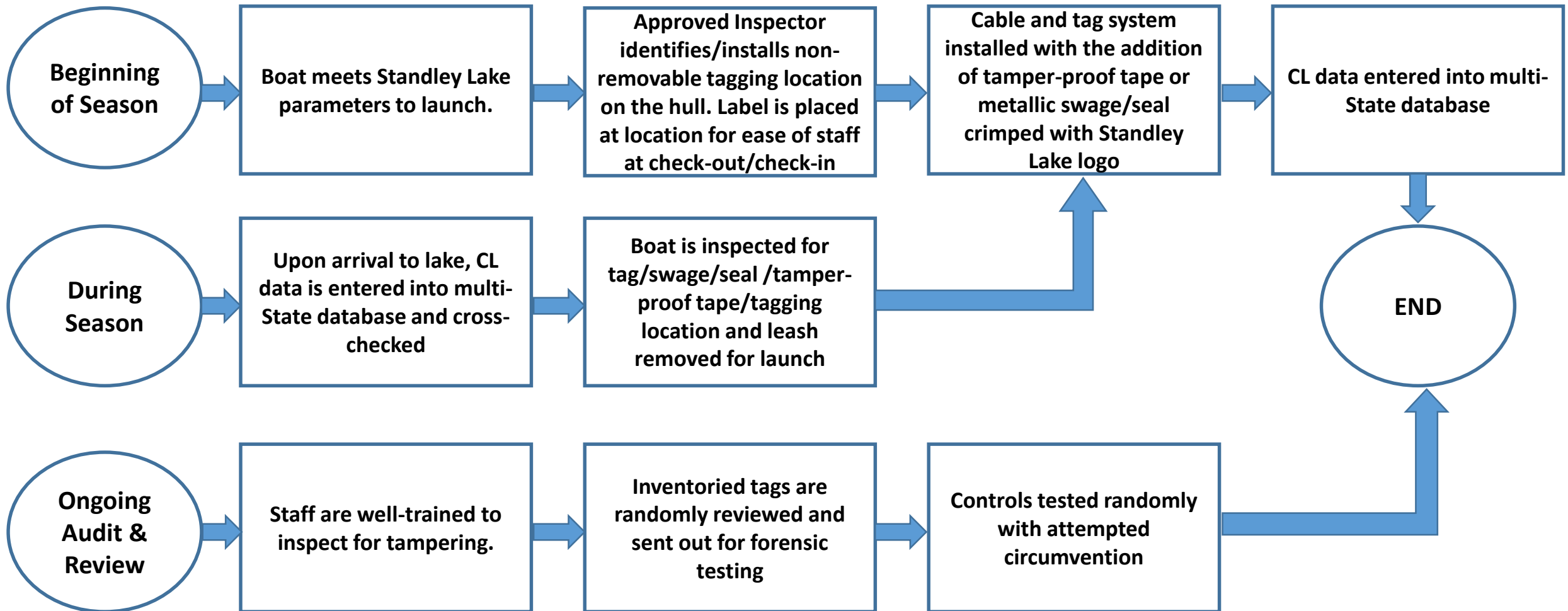
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Backup Materials

Proposed Process Flow



Secondary Preventative Measures

Enhanced Training – all staff that check boats in and out of Standley Lake should be trained on inspecting for tampering as well as how to install tags properly. Several instances occurred where boat owners would ask staff to ‘re-tag’ the boat or add a second tag given the poor installation by staff.

Boat Co-Owners – allowing multiple individuals to share one pass opens up the risk of split responsibility. This rule needs to be revisited to ensure that all responsibility falls solely on the boat owner.

Ballast Tank Filtration - all boats with ballast tanks should be required to have filtration systems.

Photo of Passholder – should be placed on the member card, or at minimum, saved on the screen when checking in. Only those individuals with a pass should be allowed to bring a boat into the park.

Lake/Boat Ban – a trespassing ticket combined with losing the ability to boat on the lake for the year is not a sufficient penalty. A lifetime ban on Standley should be considered. Furthermore, Standley Lake has the opportunity to become a leader in ZQM prevention should they report violators to the multi-State tracking system. With the risk at hand, violators should face penalties closer to that of hunters when they poach illegal game. To prevent a violator that is caught from simply transferring the boat to a friend or relative, it is recommended any attempted violators have the boat banned from the lake until proof of buy/sell occurs.

Ongoing Audits – to randomly inspect tags that have been removed (inventoried by boat) and send to tag manufacturer for forensics tests. Part of ongoing audits would also include feedback from Taskforce, feedback from Park Staff, and attempted breaking of the system by test vessels.

Summary

Standley Lake had essentially one preventative measure (decontamination/quarantine), one ineffective key control (tagging system), and one follow-up audit process (comparing end of season data with Multi-State database).

The proposed solution provides the same preventative measure (35 day decontamination/quarantine), a multi-level tagging system that makes this key control effective (through-hull and tamper proof lock nut), a real-time additional key control (Integration with Multi State database), and several additional mitigating controls implemented throughout the season. The act of simply *'removing/slipping a tag and reinstalling'*, placing an important source of water at risk, is no longer feasible. This solution adds little cost and time to the existing process, simply turning the old process into one that is measurably viable.

“The Standley Lake boating community has largely been a terrific partner in helping protect these waters,” said Jason Genck, director of Westminster Parks, Recreation and Libraries – the department that manages Standley Lake recreation facilities and permits. “Until we can determine if there’s a way to ensure these types of boats won’t pose a substantial risk at the lake, we need to put these activities on hold immediately and indefinitely.”

<https://www.cityofwestminster.us/Boating>

The boating community has enhanced their partnership in protecting the waters and we request that this document be used as a guide for the taskforce to implement secure safeguards. The items of concern voiced by Westminster have been thoroughly addressed, ensuring these types of boats do not pose a risk and allowing for boating to resume as quickly as implemented.

The City of Westminster has a perfect opportunity to display innovative risk prevention while still accommodating all recreational purposes that have long been enjoyed in the park. This resolution achieves a common goal of clean water while simultaneously enjoying one of the most beautiful assets in Metro Denver.

We welcome any feedback of the proposed solutions, and we gladly volunteer our time, effort, and resources to assisting in implementation. Solution examples are available for Subject Matter Experts to review and provide substantiated criticism.

