ADA COUNTY
NOXIOUS WEED
CONTROL

2022 Annual Report

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2/17/2023

Contents

Mission Statement

To prevent and control noxious weeds throughout Ada County, pursuant to Idaho Code Title 22, Chapter 24, and to provide excellent public health, safety, and educational services to the taxpayers of Ada County.

General Department History and Planning

Ada County Noxious Weed Control (ACNWC) has a comprehensive and coordinated integrated weed management program for the management, prevention, and eradication of noxious weeds. Along with an aggressive plan for controlling and eliminating noxious weeds, the department also works to control vectors, or methods by which a noxious weed can be spread throughout the county. Examples of vectors include contaminated feed, seed, packing materials, or motorized and non-motorized vehicles (including ATVs, motorcycles, bicycles, or trailers) that could be carrying seeds. This also includes boats, personal watercraft, or watercraft trailers that carry aquatic noxious weed species or propagules.

Management and Staff

Adam Schroeder, Director
Desireé Keeney, Deputy Director
Diana Beahm, Administration Specialist II
Jason Nida, Division Coordinator
Additional Staff: 8 full-time field employees; 1 full-time GIS Analyst (shared with Mosquito and Pest Abatement Districts); 2 full-time administration staff (shared with Mosquito and Pest Abatement Districts).

Training and Education

Continuing education and training is a primary objective of our program in efforts to use the best management practices available. Most of the training also contributes to recertification and continuing education credits through the Idaho State Department of Agriculture needed to carry a Professional Applicators license in the state of Idaho year-to-year.

2022 Seminar/Training	People Sent	Hours	Total Hours
ID Noxious Weed Conference	9	32	288
ID Weed Superintendents Meeting	2	12	24
Internal Staff Training	9	-	~1000
Boise State University- Student Internship	1	427	427
Approximate Hours in Training			**>1700**

Figure 1: External and internal training seminars and conferences for full-time and seasonal staff in 2022.

Figure 1 displays the total of training seminars ACNWC staff attended during 2022. The internal training total is derived from time management records for full-time weed control staff, excluding the conferences listed. This year there was a significant decrease of documented formal training due to COVID-19; the trainings listed below were before the outbreak occurring in January. There were three

new Field Technicians hired in spring and early summer in 2022 to replace staff that left for other employment and continuing education as well as a BSU intern to assist in the noxious weed control department and compliance and education for part of the summer.

Memberships, Affiliations, & Grants

ACNWC is a member of the Idaho Association of Weed Control Superintendents. This association increases education opportunities to our staff by keeping ACNWC up to date on new noxious weed control methods, best-available science practices, and knowledge of potential legislation that will affect our operations and/or constituents.

ACNWC contracts with the Idaho Department of Transportation (ITD) to reduce and control noxious weeds along state highways within Ada County. Additionally, ACNWC also receives grant funding from the Bureau of Land Management (BLM) for the purpose of pursuing a mutual goal of reducing and/or eradicating noxious weeds on federal lands.

Integrated Weed Management and Weed Categories

ACNWC follows a strategic plan for long-term goals and missions of the department using an Integrated Pest Management (IPM) approach. Using this approach, Ada County has developed a Noxious Weed Control Action Plan (NWCAP) for noxious weeds found in Ada County. NWCAP defines appropriate control options for each species as a guide to landowners and staff to assist them in reducing or eradicating noxious weeds using best-management practices. An IPM program utilizes all known aspects of control to reduce or eradicate the target species, which includes education/prevention, physical, cultural, mechanical, biological, and chemical controls. Not all control methods work for all species and are often unique to the ecology of the noxious weed, environment, and climate within the time of control and propagation.

The Idaho State Department of Agriculture (ISDA) designates each noxious weed species into three categories: Early Detection Rapid Response (EDRR), Control, and Containment.

EDRR – After weeds are identified and mapped, they should be eradicated within two years of detection, using all means necessary. Approximately 72% of the NWCAP listed noxious weeds fall into this category as shown in Figure 2. The majority of these species do not have a current presence within Ada County. Example EDRR species include Yellow starthistle, Matgrass, and White bryony.

Control – Identified weeds in this category are to be reduced, controlled, and eradicated within five years of detection. Only 12% of the listed noxious weed species are in this category. Examples include Scotch thistle and Jointed goatgrass.

Containment – Noxious weeds in this category are known to exist in various populations throughout the state and may be widely spread. Containment category weed control efforts may be directed at reducing or eliminating new or expanding weed populations. Although, known and established weed populations may be managed by any approved weed control methodology, as determined by the weed control authority.

NWCAP is used to maximize control efforts while having minimal adverse effects on people, wildlife, domestic animals, and the environment. ACNWC considers all controls carefully along with cost-versus-

benefits, efficacy, control effects, and ecological impacts. Examples include Puncturevine and Canada thistle.

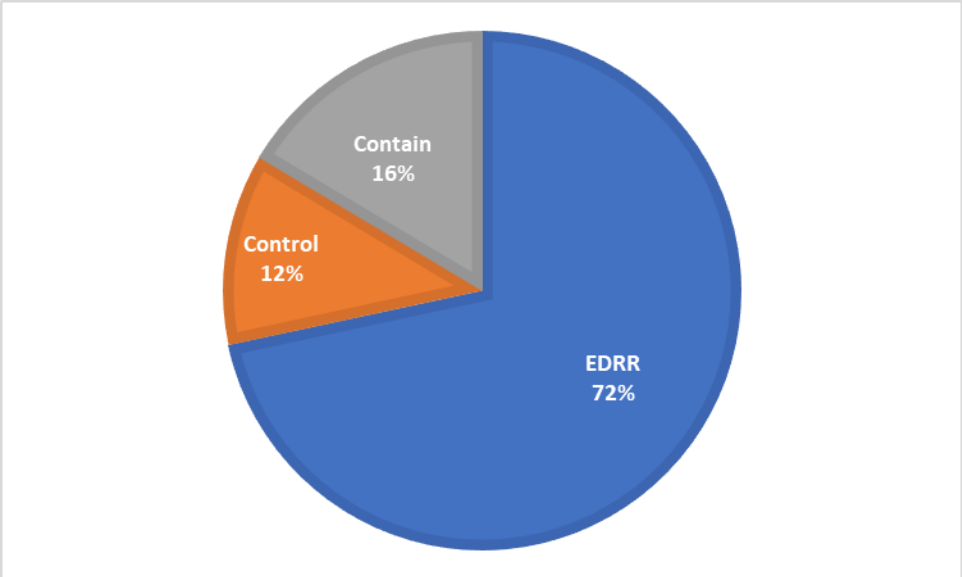


Figure 2: Percentage of weed species by designation per ACNWC Action Plan 2021-2022.

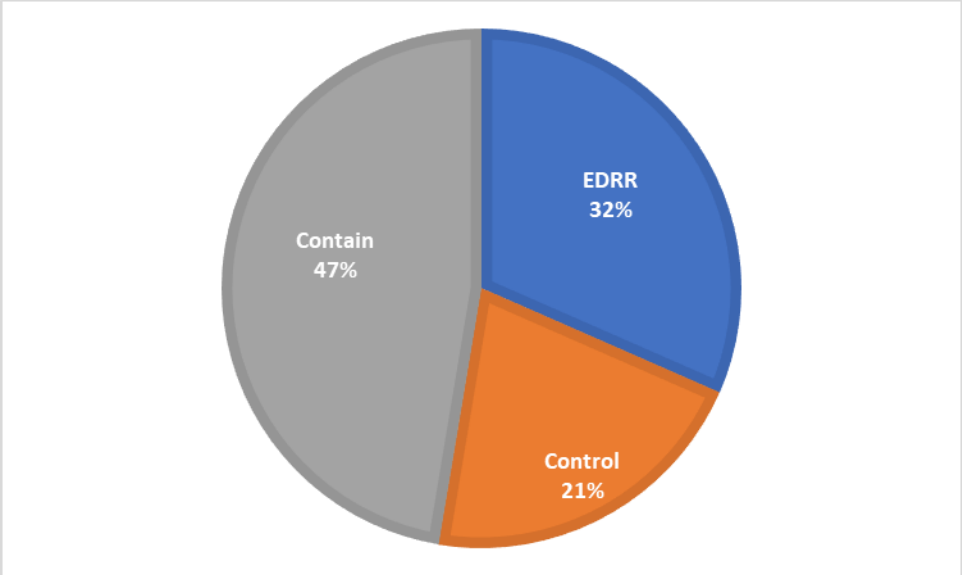


Figure 3: Percentage of treated weeds by category designation in 2022 as performed by ACNWC.

While there are only 16% of weed species listed under the Contain category in Figure 2, they account for nearly half of all the noxious weed species ACNWC treated in 2022, as shown in Figure 3.

Public Education

Public education is a primary objective of any IPM program. Through public education and outreach, we work to better inform the residents of Ada County about the best management practices to control noxious weeds.

In 2022, ACNWC conducted the following outreach with the community.

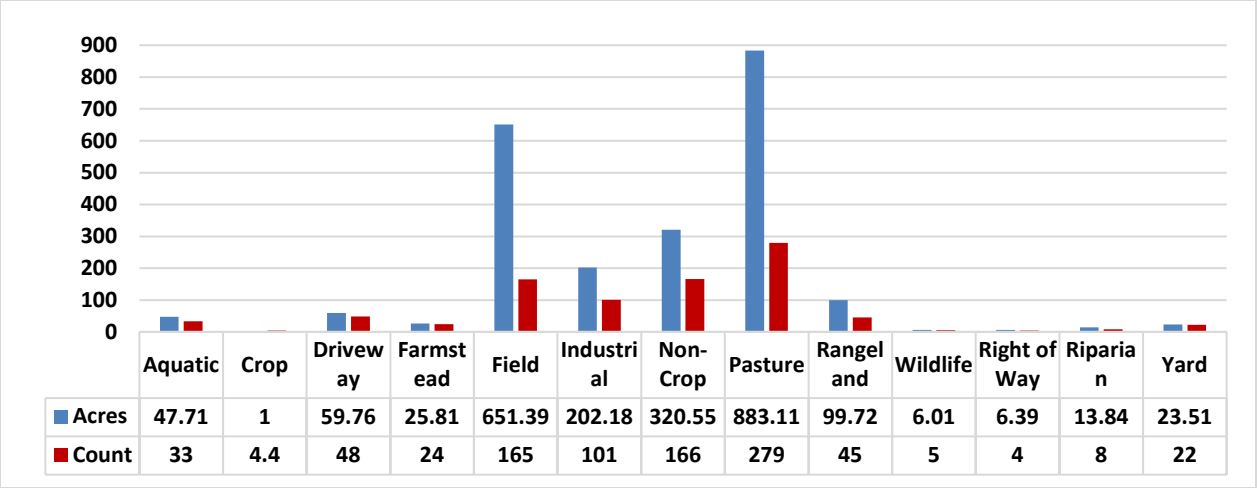
- Social media posts through Facebook and NextDoor
    - Cogon Grass outreach
    - Biocontrol release information
    - Idaho Noxious Weed Awareness Week
    - Aquatic noxious weed outreach
- Handouts
    - Long-Term Residual treatment expectations
- Workshops
    - Weed Warrior training (one session)
- Education trailer education and outreach
    - Education trailer updates, including new wood block puzzles, "Goathead Ranger" stickers, "Make Your Own Goathead Crown," branded balloons, updated branded frisbees
    - Noxious Weed Awareness week outreach (62 visitors)
    - 7 days at the Western Idaho Fair (805 visitors)
    - Goathead Fest (over 1000 visitors, 100 Puncturevine "Crowns" made)
    - Daily interactions with field staff and the public during the weed season

Public Service Requests

ACNWC received public service requests beginning in January of the 2022 season but did not begin treating properties until February. Upon the receipt of a landowner's request for service, ACNWC field technicians inspect the property, identify any noxious weeds on site, and prepare a recommendation to eradicate or control the infestation. The landowner has the following options after inspection and ACNWC consultation: control the infestation themselves, hire a third party to control the infestation, or allow ACNWC to treat any noxious weeds found on site at a subsidized cost.

ACNWC recorded the first call requesting weed control services on February 6th, 2022. In the 2022 season, 1,383 work order service requests were generated from a total of 1,911 calls received for weed control services (distribution map on Appendix 1.1). A total of 965 work order service requests were completed in 2022 while 383 work orders were cancelled due to seasonal timing, response time delays from staff shortages, weather, the absence of noxious weeds, testing software, or the landowner declining services after consultation.

The 2022 noxious weed control season began on February 1st (week 5) and lasted until the week of December 18th (week 51) with 225 days of work completed. In 2021, ACNWC completed 219 days of work between February 1st (week 5) and December 9th (week 49). Figure 4 demonstrates the number of work orders and acres treated per target site type. These values include enforcement spray work.



	Aquatic	Crop	Driveway	Farmstead	Field	Industrial	Non-Crop	Pasture	Rangeland	Wildlife	Right of Way	Riparian	Yard
Acres	47.71	1	59.76	25.81	651.39	202.18	320.55	883.11	99.72	6.01	6.39	13.84	23.51
Count	33	4.4	48	24	165	101	166	279	45	5	4	8	22

Figure 4: Work order count and treated acres by target site type in 2022.

Members of the public contact ACNWC for service on various target-site locations, which are treated seasonally. In 2022, the most requested target site types treated in Ada County were Pasture, Field, Non-crop, and Industrial (see Figure 4). ACNWC treated 2,344 acres in 2022, which is 24% less than in 2021. This is mostly due to staffing shortages during the growing season.

Figure 5 displays the percentage of ACNWC control actions for each primary weed species in Ada County. Noxious weeds comprised 63% of work orders in 2022, with the remaining work orders addressing nuisance or invasive weeds. The primary weed species treated was listed for all work orders, however, many properties were infested with more than one species. Puncturevine treatments made up the largest percentage (42%) of work in noxious weed control, followed by Canada thistle (28%). A large portion of work completed was dedicated to the prevention of new infestations or reduction of existing populations and propagules. One example of this type of work was the control of Puncturevine with long term residual (LTR) treatments in the spring and fall. LTR is a type of treatment made to soils that target the plant as it starts to germinate.

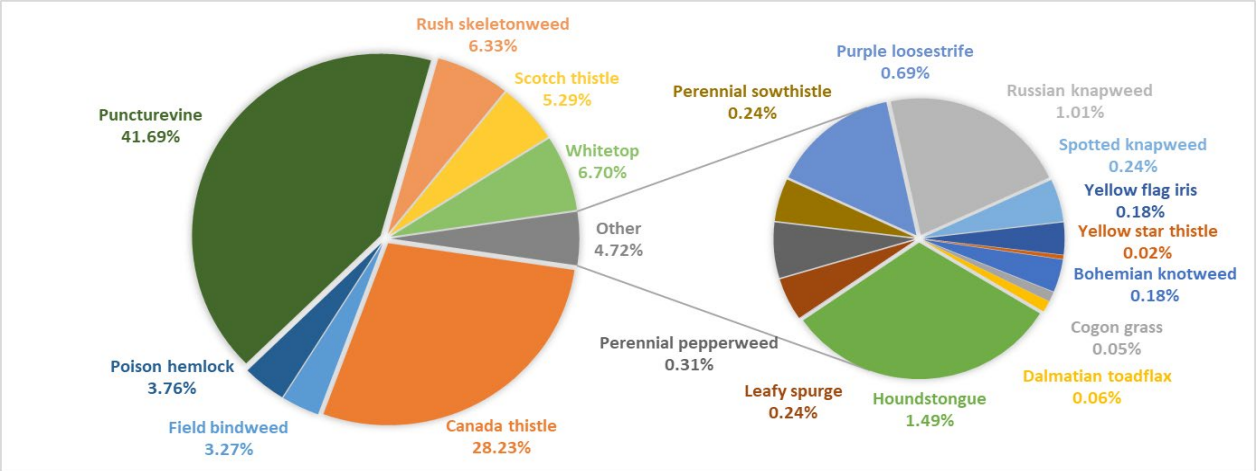


Figure 5: Percentage of targeted noxious weed by work order in 2022.

Weed Control Work & Climate Data

Ada County experiences seasonal variability in abundance, distribution, and effective/efficient control timing of noxious weeds. Climate, average daily temperatures, precipitation, and wind all influence noxious weed germination, growth, and distribution. Therefore, the window of opportunity to identify, map, and treat noxious weeds varies from species to species and from year to year.

Wind heavily influences ACNWC's ability to apply herbicides as chemical treatments are not allowed with wind speeds greater than 10 mph. Other integrated weed control management practices can be implemented during high wind periods. In 2022, approximately 542 hours (28% of scheduled workdays), documented by count of personnel and hours/day, were lost due to inclement weather. Inclement weather includes windy, rainy, or snowy days, as well as high and low temperatures.

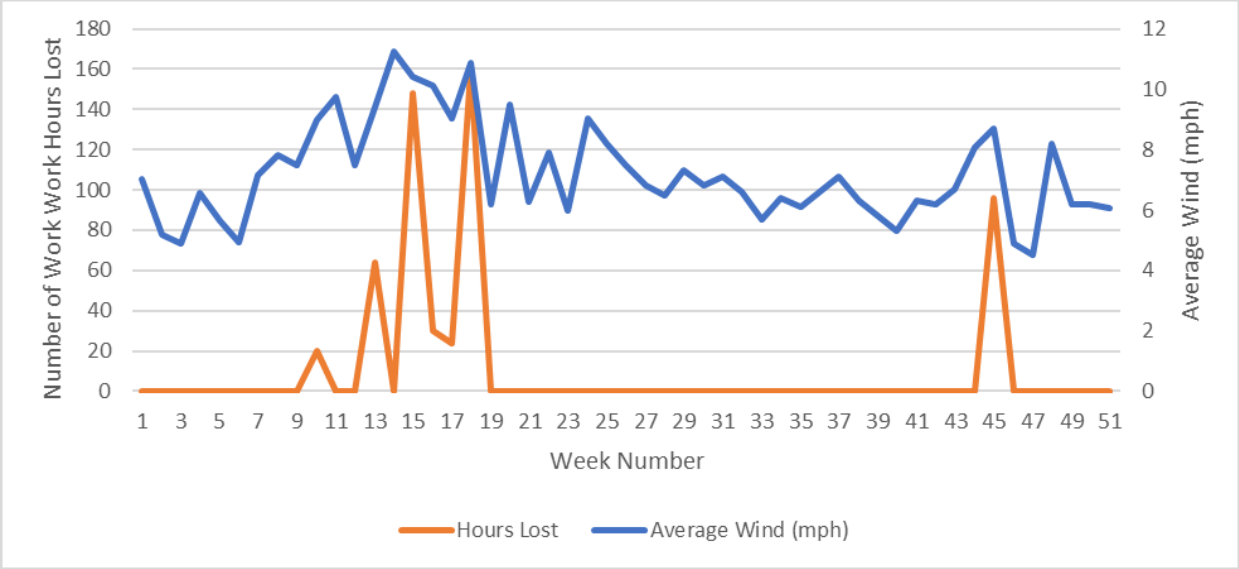


Figure 6: Recorded work hours lost per week due to inclement weather and average wind speed per week in 2022.

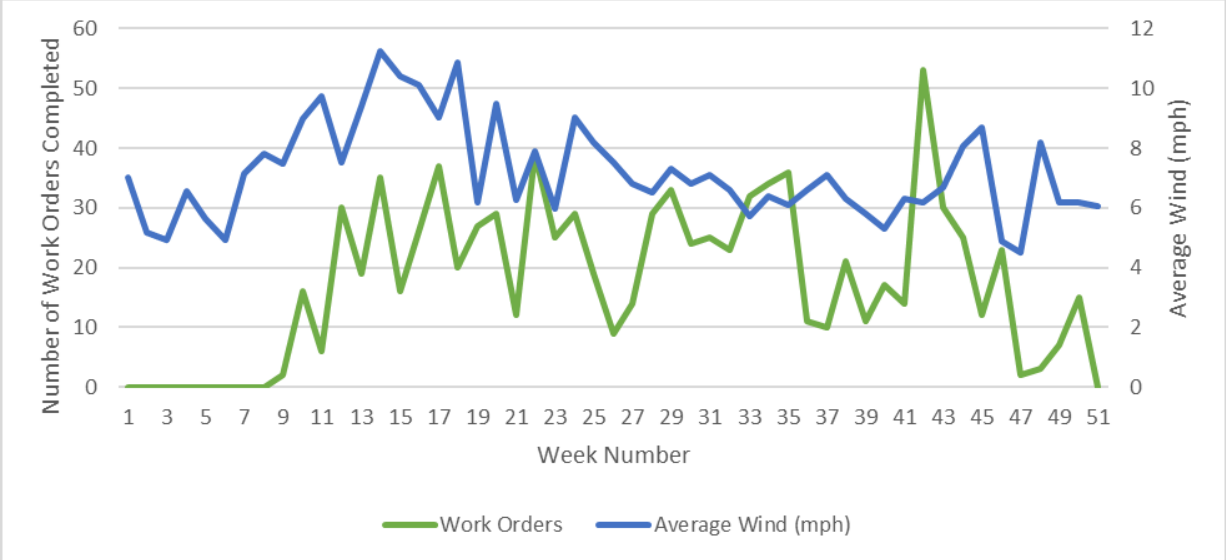


Figure 7: Number of work orders completed and average wind speed per week in 2022.

New Invaders 2022

In May of 2022, a local botanist identified *Imperata cylindrica*, a highly invasive plant commonly known as Cogon grass, Red Baron and/or Japanese bloodgrass growing on private property near the Boise foothills. The discovery was reported to the Idaho State Department of Agriculture (ISDA) and later ACNWC. The species was positively identified by both agencies as well as a third-party lab before being temporarily listed as noxious weed under the EDRR category by ISDA.

Not native to the United States, Cogon grass was introduced in Alabama and more recently Florida as a soil stabilizer and potential forage crop. However, it aggressively crowded out native vegetation creating thick monocultures while also performing poorly as both forage and in its ability to control erosion. It is now considered to be one of the worst noxious weeds throughout the world.

The plant was introduced into the Boise area as an ornamental being sold by local nurseries under such varietals as Red Baron and Japanese bloodgrass. After its listing as a noxious weed by the ISDA, sales within the state were prohibited and actions to find and eradicate the species were underway. A total of 5 sites were found and treated throughout the 2022 growing season; efforts to monitor and treat these locations and locating new ones will continue throughout 2023.

Early Detection Rapid Response

Several noxious weed infestations throughout Ada County are considered EDRR species. When these species are found, the priority of ACNWC is to treat them within the spraying season and eradicate the populations within two years. The following are known EDRR species in Ada County and are currently being monitored for abundance or distribution changes.

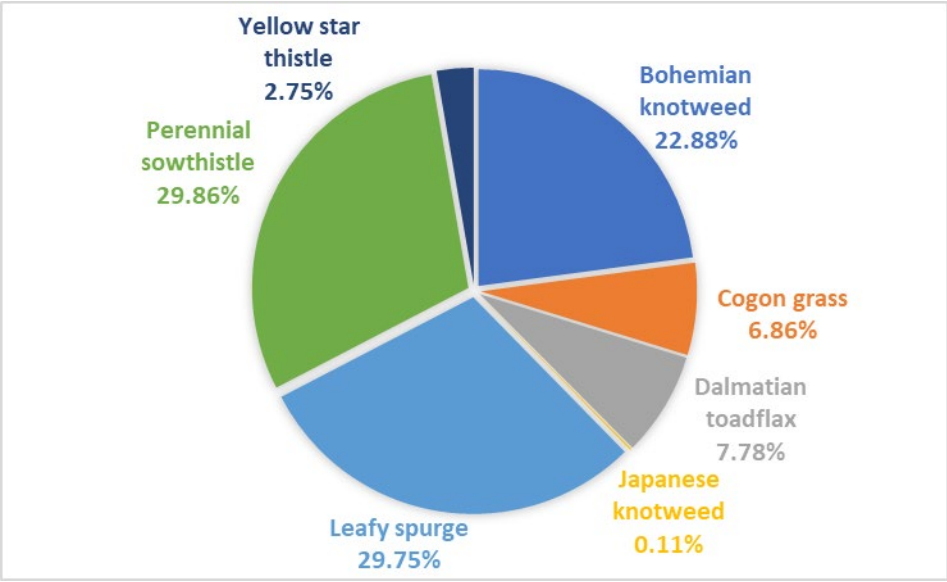


Figure 8: Percentage of EDRR species treated throughout 2022.

Yellow starthistle *(Centaurea solstitialis L.)* exists as 3 separate populations in the county. The largest of the populations reside in the foothills north of Eagle. Originally found reestablished in 2013, the species is currently distributed across approximately 400 acres of both privately and publicly owned property. ACNWC has mapped and treated the population every year since

2013. During the 2022 growing season, ACNWC surveyed the area resulting in a total estimated treatment area of 0.24 acres, a 25% increase from 2021.

The other two populations exist in relatively small abundance along W. Columbia Rd. between S. McDermott Rd. and S. Cloverdale Rd. These populations are entirely located on private property and are managed by the property owners with oversight from ACNWC. ACNWC will continue to work with the Bureau of Land Management and private landowners to monitor and treat YST in 2023.

Johnsongrass *(Sorghum halepense)* was first discovered in Ada County in 2018 and has been progressively monitored since. The primary method of control has been hand pulling due to its limited distribution. In 2018, approximately 20 plants were pulled and roughly 15 in 2019. A new location was discovered and mapped in 2020 adjacent to previously known locations. Monitoring continued through 2021 and 2022 and no plants were found. ACNWC will monitor these sites in 2023, and if no plants are found, again, then Johnsongrass will be designated as eradicated.

Black henbane *(Hyoscyamus niger)* is a toxic plant with a known infestation site located in southern Ada County. The plant had a known presence there for approximately 10 years. In 2020, roughly 6 acres were treated. Several surveys were conducted in 2021 and 2022, during which no plants were found. This demonstrates a successful eradication of an EDRR plant within a growing season following ACNWC Action Plan. However, ACNWC will continue to monitor and control Black henbane as needed until countywide eradication is confirmed.

Dalmatian toadflax *(Linaria dalmatica)* has infested several small sites located in and around the Boise foothills. Following a 1.96-acre treatment in 2020, one such site was surveyed twice in 2021 and once in 2022 resulting in no live plants found. A new infestation was found and treated in 2021 on a section of greenbelt managed by Ada County Parks and Waterways. That site was treated again in 2022 resulting in no live plants found when monitored in the fall of that year. A site above Lucky Peak that was treated in the spring of 2022 and was later inspected the following fall resulting in no live plants found. Another site in the Boise foothills was reported in 2022, but no live plants were present during time of investigation. All previously mentioned sites will be monitored through the 2023 season.

Perennial sowthistle *(Sonchus arvensis)* was discovered in a City of Boise public park in 2019 followed by a targeted treatment. At the time of treatment however, much of the population had gone dormant resulting in low control efficacy. The following year in 2020, 3 separate treatments were carried out across the growing season to target the plant in its early rosette stage. A significant population reduction was observed when monitored in mid to late October of the same year. The site was surveyed and treated again in 2021. During the 2022 season, the site was treated in the spring and an extensive mapping survey was conducted in the fall to help guide treatment efforts during the 2023 season.

Hoary alyssum *(Berteroa incana)* was treated after a public complaint came in on a neighboring property in 2019. Upon its discovery, the infestation was small: spanning approximately 100 square feet. It was believed to have been introduced from a bird feeder with imported seed. ACNWC treated the area later that same year, and the population has since exhibited 100% control. Monitoring will continue as viable seeds can lie dormant in the soil for years to come.

Leafy spurge (*Euphorbia esula*) was found on a City of Boise property southeast of Marianne Williams Park in 2021. This resulted in an estimated treatment area of 0.64 acres. The site was revisited in the spring of 2022 resulting a rough treatment area of 0.32 acres. Eradication within the 2022 growing season was confirmed later that spring, mid-summer, and in late November.

Noxious Weed Species Composition Data

In 2022, ACNWC mapped 635 new or updated weed infestations as seen in Figure 9, below (approximately 47% more than in 2021). Omitted from the figure are Diffuse knapweed, Field bindweed, Leafy spurge, Parrotfeather milfoil, Perennial pepperweed, Plumeless sow thistle, Russian knapweed, and Spotted knapweed as each of these species contributed to less than 1% of the weed points. The percent of nuisance weeds are tied to the work orders mapped in ALAMO.

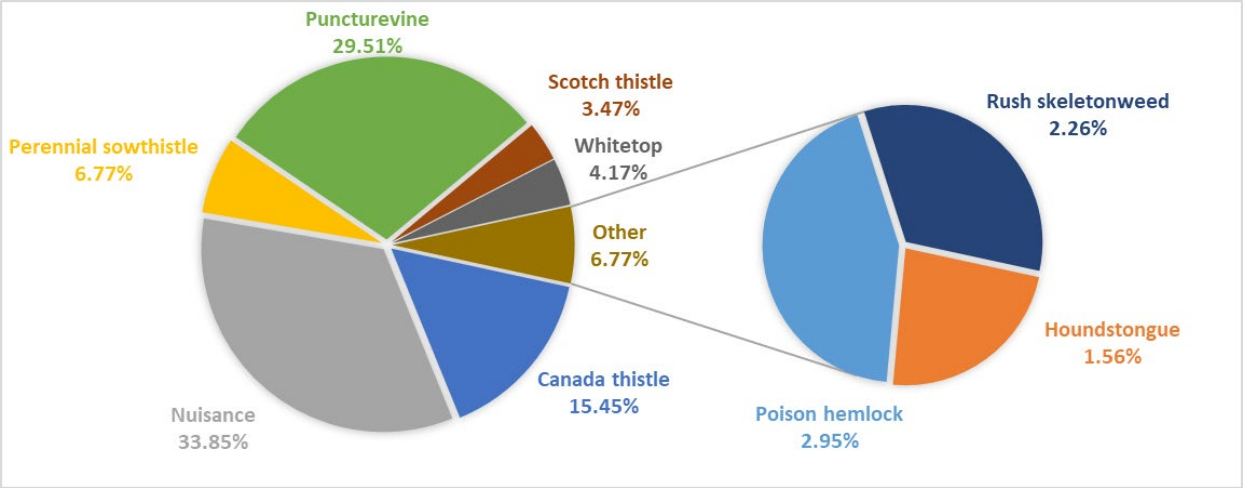


Figure 9: Percent breakout of new or updated mapped weed infestations in 2022 by species.

Compliance and Enforcement Activities

ACNWC is the enforcement authority in Ada County for noxious weeds. The Compliance Lead operates under the authority of the Ada County Weed Superintendent and responds to internal and external complaints. Any landowners with properties out of compliance according to Idaho Statue Title 22, Chapter 24, Ada County Noxious and Nuisance Ordinance, and ACNWC Action Plan, received a certified legal letter, or a letter posted to the non-compliant property, for notification. Figure 10 shows the response to enforcement letters sent out in response to public and internal complaints for the control of noxious weeds in 2022.

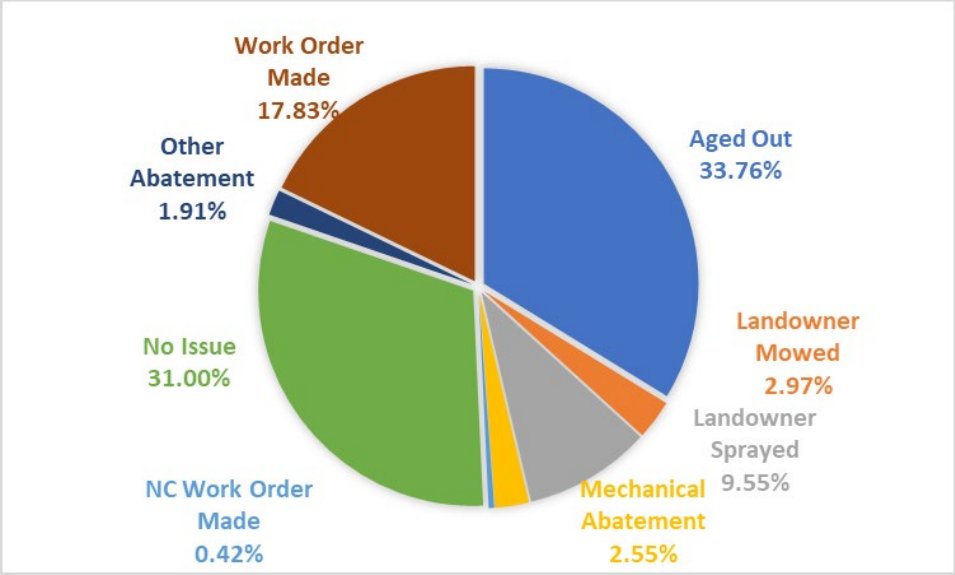


Figure 10: Percent distribution of enforcement letter results for 2022.

In 2022, approximately 18% of letters mailed resulted in work orders completed by ACNWC accounting for an overall decrease of 56% from 2021. ACNWC received 471 public and internal complaints (27% more than 2021) resulting in a total of 187 enforcement letters sent to address noxious weeds (a 36% decrease from the 293 letters sent in 2021). A total of 95 work orders were created (80 completed; 15 cancelled) from these letters sent (this number is an estimate due to the ongoing development of ALAMO software). A distribution map can be found in Appendix 1.1.

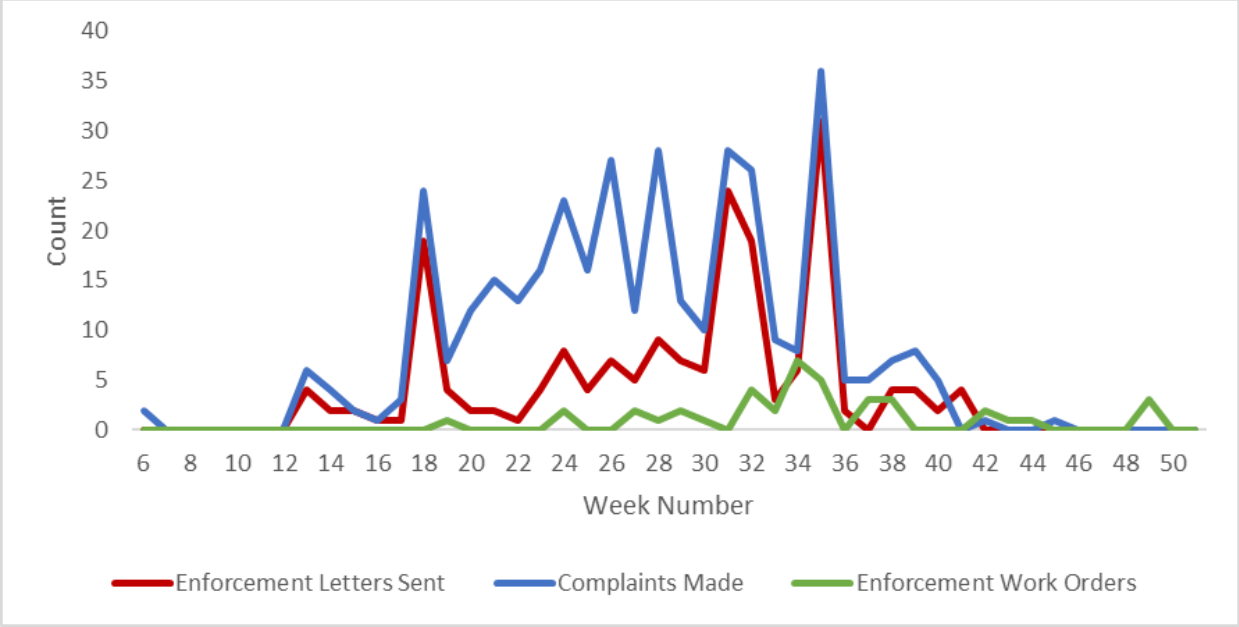


Figure 11: Count of complaints, letters sent, and enforcement work orders per week in 2022.

Aquatic Division

Ada County has hundreds of waterbodies within its jurisdiction which creates a large challenge for monitoring and control. Due to this, staffing and other limitations, waterbodies were surveyed minimally for the presence of noxious weeds during the 2022 season. ACNWC staff assisted the ISDA with mechanical removal of Parrotfeather milfoil once a month through snorkeling and the ISDA certified scuba diver and Noxious Weed Section Manager for Southwest Idaho. Each location within Ada County that had known locations of Parrotfeather milfoil and cooperative landowners saw direct reduction (~97%) of the aquatic plant biomass throughout the growing season; in October there were 0 plants found, however, in November, 3 plants were found, which demonstrates the need for ongoing monitoring in the next seasons. Additionally, farther downstream of the Boise River, new locations were discovered and will be monitored, and control methods implemented in 2023. This project is on-going with ISDA and will be continued through the next few years to see if this is an applicable option for this noxious weed species due to its limited distribution.

Public Works Division

Biocontrols for noxious weeds

Biological control of weeds involves the deliberate use of living organisms (mostly insects) to limit the abundance of a target weed (Winston et. al 2014). Biocontrol agents may target a weed's flower, seeds, roots, foliage, and/or stems. These control measures must go through rigorous testing through US Department of Agriculture APHIS-PPQ and Technical Advisory Group (TAG). It can take ten or more years before a new biocontrol agent is approved for release. While biocontrol agents can be an effective and important weed management tool, it does not work in all cases and should not be expected to completely eradicate target weeds. Even in the most successful cases, biocontrols may take years, decades, and repeated releases to notice impacts in the environment (Winston et. al. 2014). When there are known agents available for a target weed, ACNWC receives the agents from the Nez Perce Bio-Control Center for noxious weeds. Some have become naturalized and widely distributed in Ada County.

ACNWC released an estimated total of 1,500 individual agents throughout Ada County at 7 separate sites spread throughout Boise, Eagle, and Meridian. Of the estimated 1,500 agents, approximately 1,000 were of the species *Agonopterix alstromeriana,* commonly referred to as the Hemlock moth. In its larval form, the Hemlock moth targets the lethally toxic plant species *Conium maculatum,* commonly known as Poison hemlock.

An estimated 50 beetles of the species *Hylobius transversovittatus,* also known as the Root weevil, were released in northwest Eagle to control *Lythrum salicaria*, commonly referred to as Purple loosestrife. Both the adult and larval Root weevils feed on Purple loosestrife. This makes these insects particularly useful where stands of the noxious weed have gained a foothold along the Boise River.

An estimated 150 agents were released for Yellow starthistle in Eagle and on the border of Ada County and Boise County just north of Avimor; 2 releases (100 agents) of Puncturevine biocontrol were also released, however an established population of these either of these two species have yet to be confirmed in Ada County.

Biocontrol insects are not a silver bullet. Even when successful, they often only contribute about a 10% impact on their target weeds in Ada County. Since this is not a cure-all, it is only a small portion of our

IWM plan. ACNWC will continue to implement and add to our programs as approved biocontrol agents become available.

Interagency collaborations for noxious weed control

ACNWC works with several public agencies to map, monitor, and control noxious weeds. In 2022, ACNWC worked with Ada County Parks and Waterways (ACPW), Bureau of Land Management (BLM), City of Boise (COB) Parks and Recreation and Open Spaces, Idaho department of Fish and Game (IDFG), and the Idaho Transportation Department (ITD). Many of these public agencies have scope of works projects outlined as internal documents between ACNWC and that specific entity, where more detailed information can be found by project area. In 2022, ACNWC treated approximately 94 acres on public lands within Ada County. Figure 12 shows the acres treated for these public agencies.

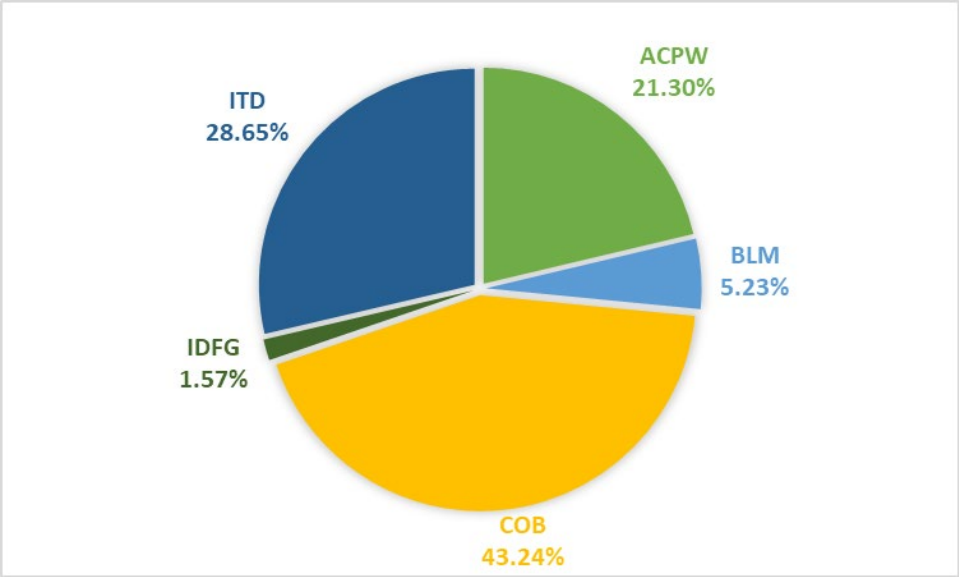


Figure 12: Percent acres treated by agency in 2022.

Ada County Parks and Waterways

Ada County Parks and Waterways (ACPW) provides diverse outdoor recreation opportunities for all of Ada County and its surrounding areas. For several years now, ACPW has partnered with ACNWC to preserve these opportunities for future use by controlling the presence of noxious weeds on properties under their stewardship. The majority of ACPW acres are covered with turf and do not require our services, however contained on some sites are aquatic, upland, or native riparian zones that do require continuous monitoring and occasional treatments for noxious weeds. Roughly 20 acres were treated in 2022. A more detailed report can be found in a separate ACPW report for 2022.

Ada County Sheriff's, Operations, and Landfill

ACNWC works with Ada County Sheriff's Department and the Ada County Landfill to prevent noxious weeds from growing in areas that must remain weed-free. Such areas include those containing radio towers or other electrical hardware.

Bureau of Land Management

During the 2022 noxious weed spray and survey season, ACNWC visited 10 project areas at various times throughout the season. Survey and treatment activities began in early May and

concluded in late November. An estimated 2,419.41 acres were surveyed and roughly 4.94 of those acres were chemically treated. A more detailed report can be found in a separate annual report for BLM, 2022.

City of Boise

ACNWC works with multiple municipalities to survey and control noxious weeds on city owned property. Most of the work performed was for the City of Boise on their Open Space and Parks and Recreation properties. Hundreds of acres were surveyed on these properties, after which approximately 41 acres were treated. A more detailed report can be found in a separate COB report for 2022.

Idaho Department of Fish and Game

In November of 2022, ACNWC treated approximately 28 acres at the Black's Creek Public Shooting Range with a long-term residual to create a weed free bare ground landscape for the parking and recreational needs of the public. This approach not only creates the desirable landscape and aesthetics, but also reduces the fire risk associated with shooting firearms in an arid environment. Additionally, ACNWC in a joint effort between the City of Boise, Idaho Fish and Game, and the Wood Duck HOA, assisted in the removal and treatment of Russian olives from a local nature reserve.

Idaho Transportation Department

In 2022, ACNWC completed work through a contract with ITD for noxious weed control on the state highways and ITD lands within Ada County. There were roughly 27 acres treated for noxious weeds on Highways 16, 20-26, 21, 44, 55, 69, and Interstate I-84. A more detailed report can be found in the ITD fiscal yearend reports, 2021-2022.

Other

ACNWC works with various other private or special interest groups that manage lands throughout Ada County. These include, but are not limited to companies such as Idaho Power, private nature reserves, and various HOAs.

Conclusion

ACNWC completed 965 weed spray work orders and sent out 187 enforcement letters to the public to control noxious weeds on their properties in the 2022 season. There were a total of 635 newly mapped or updated weed points and approximately 94 acres treated on various public lands projects.

The following list is a general summary of 2022 noxious weed control department activities:

- Increased mapped points by 47% from 2021
- Continued to control known infestations of EDRR weeds within the growing season
- Performed aquatic noxious weed control for an aquatic EDRR using integrated weed management practices
- Increased cooperation between municipalities and state agencies to control noxious weeds on public lands
- Released 4 different biocontrol agents for noxious weeds in various parts of the county
- Continued to implement revised action plan and five-year strategic plan

The amount of work achieved by ACNWC has increased steadily over the last several years. ACNWC continues to accomplish as much as possible with less available and experienced labor, pandemic setbacks, and other environmental factors. ACNWC will continue to evaluate ways to reduce work order response times, retain skilled labor, and improve our efficiencies in the specific divisions to align with the ACNWC Strategic Plan.

ACNWC Goals

Goals for 2022…

In response to our currently adopted Strategic Plan 2020-2024, ACNWC has five specific priorities, along with long term goals and objectives that will serve as guidance for developing annual goals. The following goals were worked on in 2022:

- Restructure weed department to continue to improve needs of the community and realign and support updated Strategic and Action plans, continue work on phase 2 of the restructure and analysis of plans. Develop assessment of restructure for reporting in 2022.
    - ✓ *In Progress with assessment and program of year 3.*
- Develop mid-year training and assessments of full-time and seasonal staff by documenting training rubric completion and internal seminars, training, and testing.
    - ✓ Due to a loss of staffing early in the season, there was on 2 full time applicators and one in their first full year on their own and the weed crew lead was in the field spraying more than in 2022 compared to on-going training. New staff were hired late in the season and will continue to be developed for the training program in 2023.
- Increase mapped weeds of concern (by distribution, growing season, and timing); especially EDRR category weeds, along with plans for the control and reduction of these species. Increase mapped weed points in specific areas of the county while also updating existing weed points within all crew areas.
    - ✓ *A new software program (ALAMO) was adopted during the 2022 season that implemented and requires weed mapping as a normal part of each technician's workflow. This has resulted in a significant increase in the creation and updating of weed points throughout the entire county.*
    - ✓ *Several targeted mapping projects were conducted on several EDRR hots spots throughout the county.*
- Increase integrated weed management practices by creating public land management templates, education materials, and increase public consultation and education events by 15% or more.
    - ✓ *ACNWC created several land management plans for private citizens whose properties contained noxious weeds in the EDRR category.*
    - ✓ *Public consultations were provided to all members of the public who requested them. These public consolations are promoted at all public education events such as the Western Idaho Fair and Goathead Festival.*

- Implement and increase presence of aquatic division in noxious weed control by increasing aquatic weed control applications by 10%, assist with an invasive aquatic check station, treat previously mapped aquatic weeds from 2021 and follow-up with landowners on those known infestations.
    - ✓ *While there was no chemical treatment, there was an increase in aquatic mechanical control efforts targeting Parrotfeather milfoil with ISDA personnel. This was the first time ACNWC was able to do mechanical control efforts in a few decades and was highly effective with a 97% reduction in the growing season. Monitoring the efforts and growth in 2023 will help determine if this is an effective and feasible option in the future.*
- Research and review current or new trends in noxious weed control, pesticides, and IWM practices to continue to advance Ada County Noxious Weed Control Department by attending trainings and seminars and complete independent review.
    - ✓ *Though many of the 2022 conferences, seminars, and in person trainings were canceled, staff were able to attend online seminars and conferences as available.*
    - ✓ *ACNWC staff members independently seeks information on new products and methods for control to better assist in our efforts as environmental factors, external/internal influences, and public/private needs change.*

Goals for 2023

In response to our currently adopted Strategic Plan 2020-2024, we have five specific priorities along with long term goals and objectives that we will follow as guidance to develop annual goals. The following goals will be worked on in 2023; these goals are carried over from 2020 as they are ongoing or multi-phase goals:

- Restructure weed department to continue to improve needs of the community and realign and support updated Strategic and Action plans, continue work on the restructure and analysis of plans. Develop assessment of restructure for reporting in 2024.
- Develop mid-year training and assessments of full-time and seasonal staff by documenting training rubric completion and internal seminars, training, and testing.
- Increase mapped weeds of concern (by distribution, growing season, and timing); especially EDRR category weeds and make plans for control and reduction of noxious weeds. Also increase mapped weed points in specific areas of the county and update existing weed points within crew areas.
- Increase integrated weed management practices by creating public land management templates, education materials, and increase public consultation and education events.
- Implement and increase presence of aquatic division in noxious weed control by increasing aquatic weed control applications, assist with an invasive aquatic check station, treat previously mapped aquatic weeds from 2022 and follow-up with landowners on those known infestations.
- Research and review current or new trends in noxious weed control, pesticides, and IWM practices to continue to advance Ada County Noxious Weed Control Department by attending trainings and seminars and complete independent review.

Resources

ITD Contract Agreement for Noxious Weed Control (Agreement No. 14412). 2022. Ada County Noxious Weed Control.

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Keeney, Desiree and Nida, Jason. 2022. *BLM Annual Performance Report 2022, Grant #L2AC10503-01*. Ada County Noxious Weed Control.

Nida, Jason, and Desiree Keeney. 2022. *2021 Annual Report.* Ada County Noxious Weed Control.

Nida, Jason. 2023. *2022 Summary Report City of Boise: Open Spaces/Parks & Recreation.* Ada County Noxious Weed Control.

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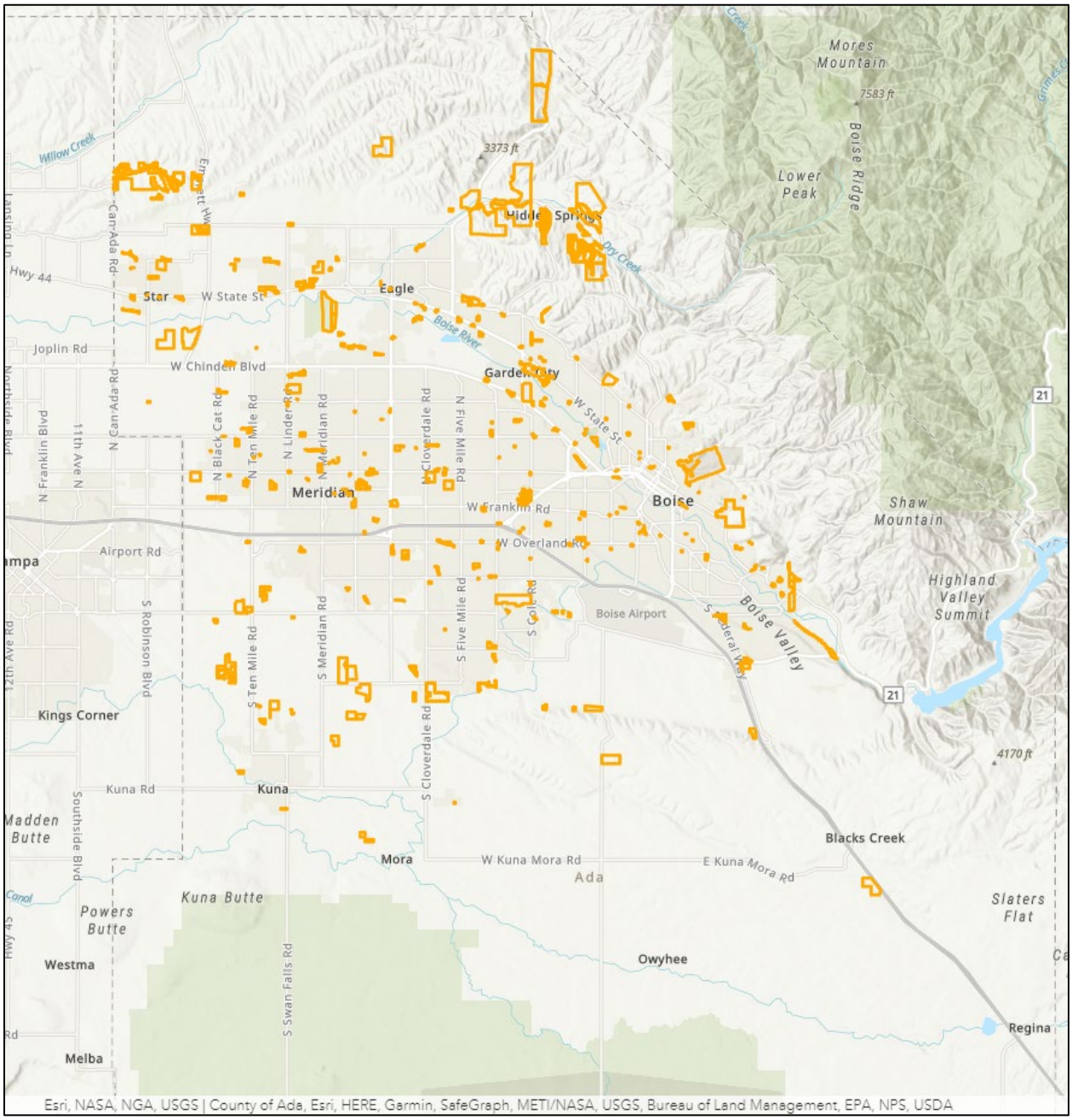
Schroeder, Adam. 2021. *Noxious Weed Control Action Plan 2021 – 2022.* Ada County Noxious Weed Control.

Winston, Rachel., Randol Carol Bell., et. al. 2014. *Field Guide for the Biological Control of Weeds in the Northwest.* USDA & University of Idaho.

Appendix 1.1

Distribution map of noxious and nuisance weed and public complaint work order requests in 2022



Appendix 1.2

Distribution map of noxious weed points mapped as active sites from 2015-2022