



ADA COUNTY NOXIOUS WEED CONTROL

2020 Annual Report

Desireé Keeney, Deputy Director

2/24/2021

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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 prevention, eradication and management 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 or packing materials; motorized and non-motorized vehicles (including ATVs, motorcycles, bicycles or trailers) that could be carrying seeds; soil, sand or gravel contaminated with noxious weed seeds; boats, personal watercraft, or watercraft trailers that carry aquatic noxious weed species or propagules.

ACNWC Management and Staff

Adam Schroeder, Director

Desireé Keeney, Deputy Director

Diana Beahm, Administration Specialist II

Additional Staff: 9 full-time field employees, and up to 2 seasonal employees; 1 full-time GIS Analyst (shared with Mosquito and Pest Abatement Districts); 7 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. The majority of training also contributes for recertification and continuing education credits through the Idaho State Department of Agriculture to continue to carry a Professional Applicators license in the state of Idaho.

The following table (Fig. 1) displays the total of training seminars ACNWC staff attended during 2020. The internal training total is derived from time management records for full-time weed control staff, excluding the conferences listed below (Fig. 1). 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 two new Field Technicians hired in spring and early summer in 2020 to replace staff that left for other employment and continuing education.

2020 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	Lot	1336
Total Hours in Training			1648

Figure 1: External and internal training seminars and conferences for full-time and seasonal staff in 2020.

Memberships, Affiliations, & Grants

ACNWC belongs to several associations which increase 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 is proudly affiliated with the following organizations:

- Idaho Association of Weed Control Superintendents (IAWCS)

ACNWC also receives grant funding from Bureau of Land Management (BLM) for the purpose of pursuing a mutual goal of reduction or eradication in noxious weeds on federal lands. We also have contracts with state agencies, like Idaho Transportation Department (ITD) to reduce and control noxious weeds along major highways within Ada County.

Integrated Weed Management and Weed Categories

ACNWC follows a strategic plan for long-term goals and missions of the department using Integrated Pest Management (IPM). Ada County has developed an Integrated Weed Management Action Plan (ACIWM) for noxious weeds found in Ada County. ACIWM defines appropriate control options for each species as a guide to landowners and staff to help reduce or eradicate noxious weeds using best-management practices. An IPM program utilizes all known aspects of control to reduce or eradicate the pest, (weed) 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, EDRR (early detection, rapid response), Control, and Containment. EDRR weeds, after identified and mapped, should be eradicated within two years of detection, using all means necessary. Control category weeds have a goal of reduction, control and eradication within five years of detection. Containment category weeds 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 while known and established weed populations may be managed by any approved weed control methodology, as determined by the weed control authority. ACIWM 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.

Public Education

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

Here is a list education and outreach conducted by ACNWC in 2020:

- Social media posts through Facebook and NextDoor
- Interactions of field staff and the public when working daily during the weed season.

Public Service Requests

ACNWC started receiving public service requests in January of 2020 and began property inspections and recommendations in late February. The public has a number of avenues to control noxious weeds in Idaho. Often, a landowner will request treatment from ACNWC. When this occurs, field technicians will respond to the landowner’s request to inspect their property. They will identify and categorize the noxious weeds present, followed by a recommendation to eradicate or control the infestation dependent. The landowner has the following options after inspection and ACNWC consultation: hire a third party, do the work themselves or have ACNWC complete the work.

ACNWC recorded the first service call on January 27th, 2020; and in total, 1688 calls for weed control service or consultation were received from the public, 1391 work order service requests were derived from these calls (distribution map on Appendix 1.1), and 1300 invoices were completed during that timeframe. A total of 280 of the work orders created were cancelled due to too late in the season to treat, weather and timing for control, not a noxious issue present or landowner declined services after consultation. The noxious weed control season began on March 3rd (week 9) and resumed until the week of December 11th (week 50) and completed 209 days of work during the season (excludes holidays); comparatively in 2019, ACNWC only worked until November 11th. Figure 2 demonstrates the numbers of invoices and acres treated by target site type recorded per invoice, these values include enforcement spray work)

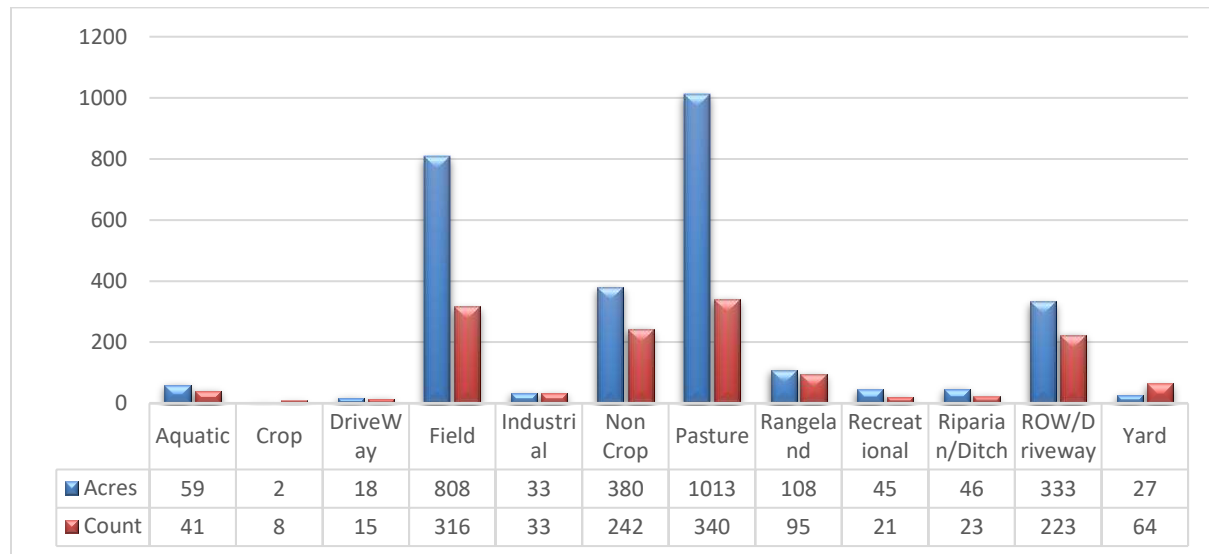


Figure 2: The count of invoices and acres treated by target site type for 2020.

Members of the public contact ACNWC for service on various target-site locations, which are treated seasonally. The top three requested target sites treated in in Ada County were pasture, field, and non-crop and driveways (as seen in Fig. 2). ACNWC treated over 2,872 acres in 2020 which is 22% more than in 2018 (n=2,239 acres). Figure 3 shows the percentages of each primary weed species that ACNWC have taken control actions on; additionally, 86% of invoices in 2020 were noxious weeds, with the remaining work controlling nuisance or invasive weeds. The weed species listed (in Fig. 3) was the primary target for the work order, however many properties have more than one species. The largest percentage of work in noxious weed control was with Puncturevine (36%) followed by Hoary cress, also known as Whitetop (15%). 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 early spring or fall. LTR is a type of treatment made to soils that targets seeds and prevents them from successfully germinating. Typically, these treatments perform better because greater precipitation levels contribute to the herbicidal-layer activity in the growing season.

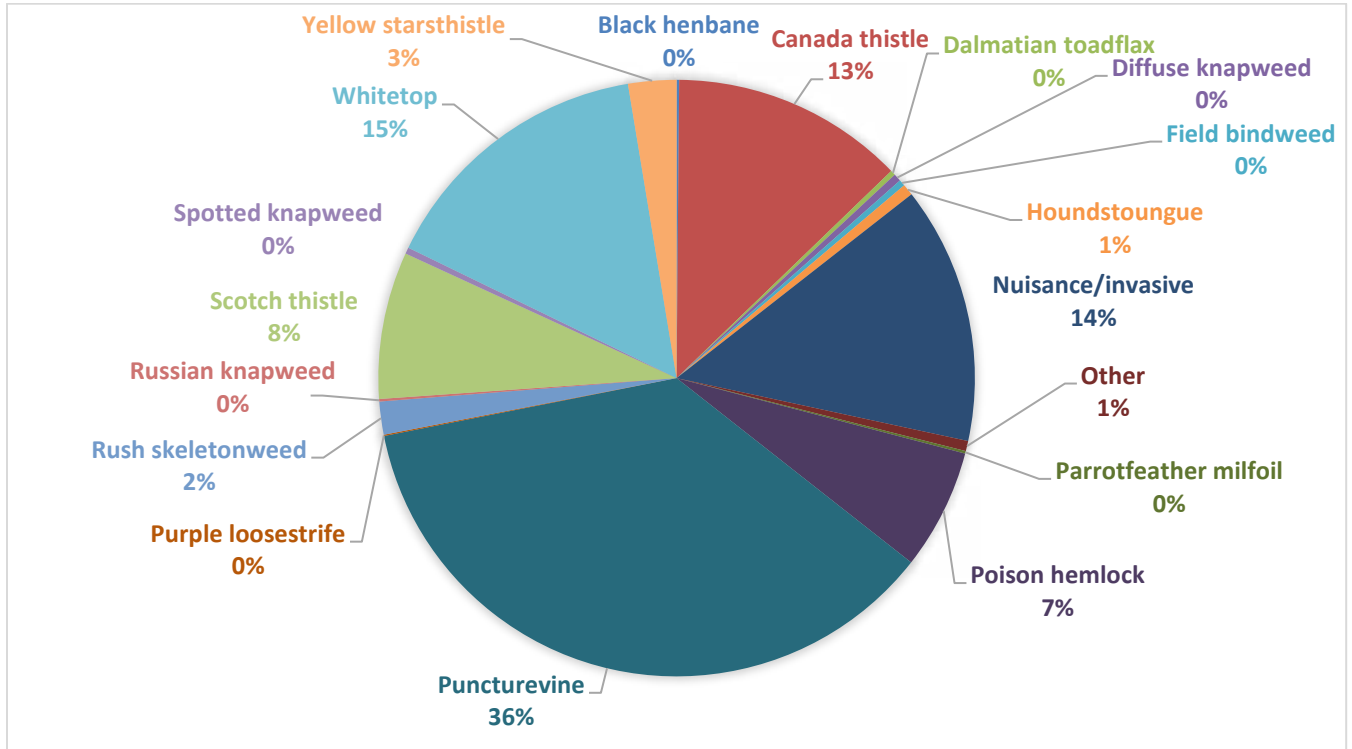


Figure 3: The above chart shows percentages of nuisance and noxious weeds targeted in work orders for 2020; 0% shown above is a value of less than 1% of work orders with control and were still treated in 2020.

Consistent with most environmental services, controlling noxious weeds is seasonal and climate-dependent. When ACNWC receives a call for assistance on private and public lands, there has been a lag time historically in response and completion of work requested. The service response goal was to make contact and respond to requests within ten business days with completion goals ranging from 20-30 days to 10 depending on time of year and targeted species. Early spring is typically the busiest time of year and the average completion time is delayed due to a shortage in staff and resources (n=52.4 days). Many land owners do call early for services that are not offered for months, which also skews the date of completion statistics. By late summer (quarter 3), the completion time was quicker to within 21 days on average.

Other variables that impact response times are:

- Land owners requesting services months before those services are offered
- Too early or too late to treat the targeted species
- Lack of labor resources
- Environmental conditions window, or inclement weather
- Lag time in communication (calls not returned, unable to schedule, multiple visits, etc.)

Weed Control Work & Climate Data

Ada County experiences seasonality of noxious weed abundance, distribution, and effective and efficient timing of control. The climate each year, including winter precipitation, is a major factor in the upcoming weed season. Depending on weed species, certain times of the year are better to treat noxious weeds due to the vegetative life stage. The weed species have ranges of time where they are identifiable and are mapped and treated during different times of year. Average daily temperatures, degree days, precipitation, and wind influence noxious weed germination and spread. Wind in Ada County's geographic area occurs primarily in the afternoon, wind data taken from the Boise airport demonstrate day-long wind events over 10 mph. In 2020, approximately 468 hours (as documented by count of personnel and hrs/day) were lost to bad inclement weather days from rain (n=13), wind (n=16) or snow (n=2) during the normal control season.

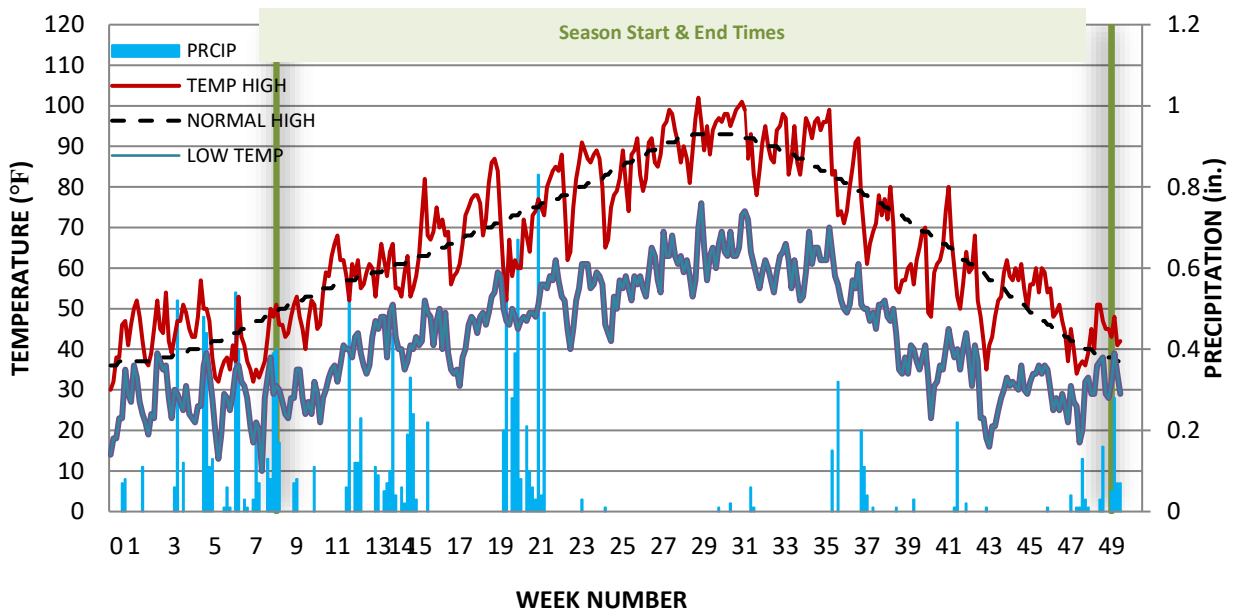


Figure 4: The figure above shows the minimum, maximum and normal (30 year avg. from 1981-2010 NOAA) temperatures, and precipitation in rain and snow by week as an example from 2019.

New Invaders 2020

There were no new invaders mapped in 2020.

EDRR

ACNWC has documented some previously-known EDRR species of noxious weed infestations. When these species are found, the priority of ACNWC was to eradicate them within two years. The following EDRR species have been found and are currently being monitored for a change in distribution or abundance and treated if present in 2020 (map found in Appendix 1.2).

Yellow starthistle (*Centaurea solstitialis* L.), although not new to Ada County, has seen a resurgence and possible increase around previously-identified and treated sites. ACNWC increased surveillance in the Eagle Foothills for Yellow starthistle (YST) and all new and existing

mapped locations were treated in 2019 (most of them were treated twice). There were 7 acres treated in 2020, a decrease from 2019 by 71% ($n_{\text{acres}}=24.26$) even with an increase in workorders (42%) and time spent on 25 properties with survey and mapping (91 new points). Yellow starthistle was documented on BLM land this year just north of the North Eagle foothills area, more details below. On average, legacy infestations saw a marked decrease in density leading to decreased treatment acreage.

ACNWC increased surveillance in the Eagle Foothills for Yellow starthistle; all known locations were treated multiple times in 2020. Sites were assessed throughout spring for optimum treatment timing, the first treatments commenced in early July. At that time, YST had just started to bloom making it visible and the Sticky gumweed and Rush skeletonweed had not started to bloom. Distribution of infestations at sites differed from past years, ACNWC observed most plants not occurring in dense stands but found single plants 20 feet apart, hiding amongst Wyoming big sagebrush. Because of the plant distribution, slower and more careful inspections were required to discover all the plants on a site during treatment. Follow up treatments are essential to the eradication effort. Two key sites were discovered this year in the Hondo area, the first was located on Sky High Lane off West Quarter Drive. This site is best described as a fragmented mosaic and dense population of YST. The significance of this site is the density and the location. The site is about 3 acres and much of it approached 80% cover. Sitting high above the Hondo area, prevailing winds could have been feeding seed onto the Hondo area for years.

A second key site discovery was found on BLM in the Hondo area. The site is located on a 300-hundred-acre parcel of BLM property directly to the west of Hondo. The infestation encompassed 5 acres, some of which was over 80 percent cover. A grim milestone, until now no Yellow starthistle had been found on BLM property within Ada County. The location of it was hidden from view from trails and roads. ACNWC's BLM surveillance team found this site because the plants found their way down the hill to a trail and worked with a BLM grant funding to start treatment on this in 2020. This EDRR weed can be difficult to control because of its phenotypic characteristics, fecundity, and its aggressive resource acquisition. Eradication of the Hondo infestation is not expected within 2 years, but will be highly monitored and treated regularly to reduce distribution and be reassessed in the next 2 to 5 years; however, 2 smaller infestations should be eradicated within 3 years.

Johnsongrass (*Sorghum halepense*), was first discovered in Ada County in 2018. This noxious weed has been controlled by hand-pulling due to limited distribution, and individual plant locations were progressively monitored. In 2018, approximately 20 plants were pulled, in 2019; about 15 were hand-pulled. In 2020, 1 new location (adjacent to previously known locations) was mapped and 5 dead plants were discovered at previously known locations. ACNWC will monitor site for a few years to confirm eradication.

Black henbane (*Hyoscyamus niger*), a toxic EDRR weed, has a small infestation in southern Ada County and has been recurring for about ten years. There was a total of approximately 6 acres treated in 2020. Recently this EDRR noxious weed population has been reduced to less than 60 plants. With continue survey and control, it is expected that within another 3 years, this plant will have a successful eradication.

Dalmatian toadflax (*Linaria dalmatica*) occupies several small infestations in Ada County, primarily around the Boise foothills. This perennial noxious weed spreads through lateral rhizomatous root structures, and has seeds that can persist in the soil for up to ten years. This

plant forms monocultures, reduces wildlife habitat, decreases biodiversity, and is considered an EDRR weed in Ada County. There are five active sites in Ada County. In 2020, 9,000 square feet were mapped, down from 31,505 square feet from last year. In 2020, treatments occurred twice and early in the season, ACNWC expects a high level of control in 2021. There was approximately 1.96 acres treated in 2020.

Perennial sowthistle (*Sonchus arvensis*) was discovered in a Boise City public park in the summer of 2019. The infestation occupied approximately 1.6 acres. A treatment was carried out shortly after identification in 2019, but this late season treatment showed low control efficacy. Most of the Perennial sowthistle had gone into dormancy at the time of treatment. In 2020, 3 treatments were carried out. The timing of the first treatment was in late May. At that time, the plants had fully developed rosettes and absorbed the herbicide very well. The second was in June and was follow up for what was missed on the first. The last treatment was in early September. A survey was performed in mid-October for Perennial sowthistle and 8 plants were found. This species is an EDRR weed in Ada County and will be monitored and treated with the goal of eradication within 2 years. Approximately 7.91 acres were treated for Perennial sowthistle (*Sonchus arvensis*) on City of Boise properties around Ester Simplot Park

Hoary alyssum (*Berteroa incana*) was treated after a public complaint came in on a neighboring property in 2019. When discovered, this infestation was small, approximately 100 sq. ft. and was believed to be introduced from a bird feeder and imported seed. Prior to treatment, ACNWC hand pulled and soil scrapped. There was an estimate of 100% control in 2019 and again in 2020. It is likely with current monitoring and treatment, eradication is possible in 9 years because of its long lived seed bank.

Noxious Weed Species Composition Data

In 2020, ACNWC mapped 656 (approximately the same as in 2019) new weed infestations to include the following: Puncturevine, Canada thistle, Whitetop, Poison hemlock, Rush skeletonweed, Scotch thistle, Yellow starthistle, Houndstongue, Dalmatian toadflax, Diffuse knapweed, Eurasian watermilfoil, Hoary alyssum, Parrotfeather milfoil, Perennial pepperweed, Perennial sowthistle, and Field bindweed as seen in Figure 5 below. ACWNC spent approximately 154 staff hours mapping in 2020, a decrease of 30% from 2019.

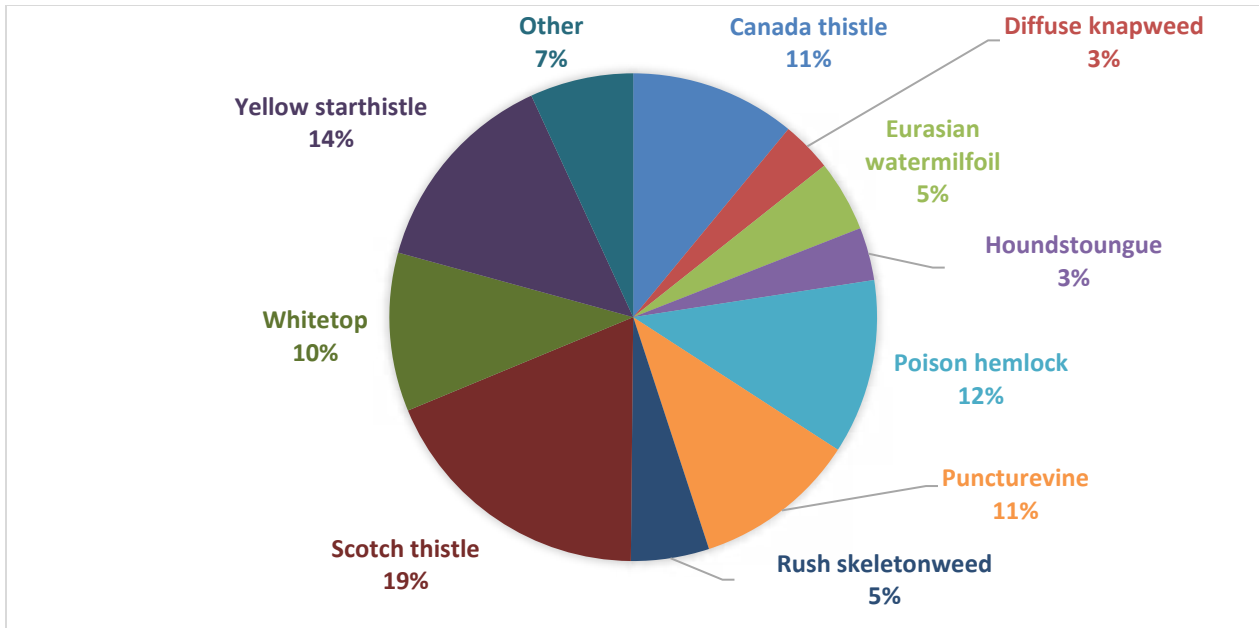


Figure 5: Percent breakout of new mapped weed infestations in 2020 by species.

Compliance and Enforcement Activities

ACNWC is the enforcement authority in Ada County for noxious weeds; the Compliance Leads operate under the authority of the Ada County Weed Superintendent, who then respond to internal and external complaints. When there was a piece of land that was out of compliance according to Idaho Statue Title 22, Chapter 24, Ada County Noxious and Nuisance Ordinance, and ACNWC Action Plan, then a certified legal letter was sent to the landowner for notification or posted to the non-compliant property. Figure 6 shows the response to enforcement letters sent out in response to public and internal complaints for control of noxious weeds in 2020.

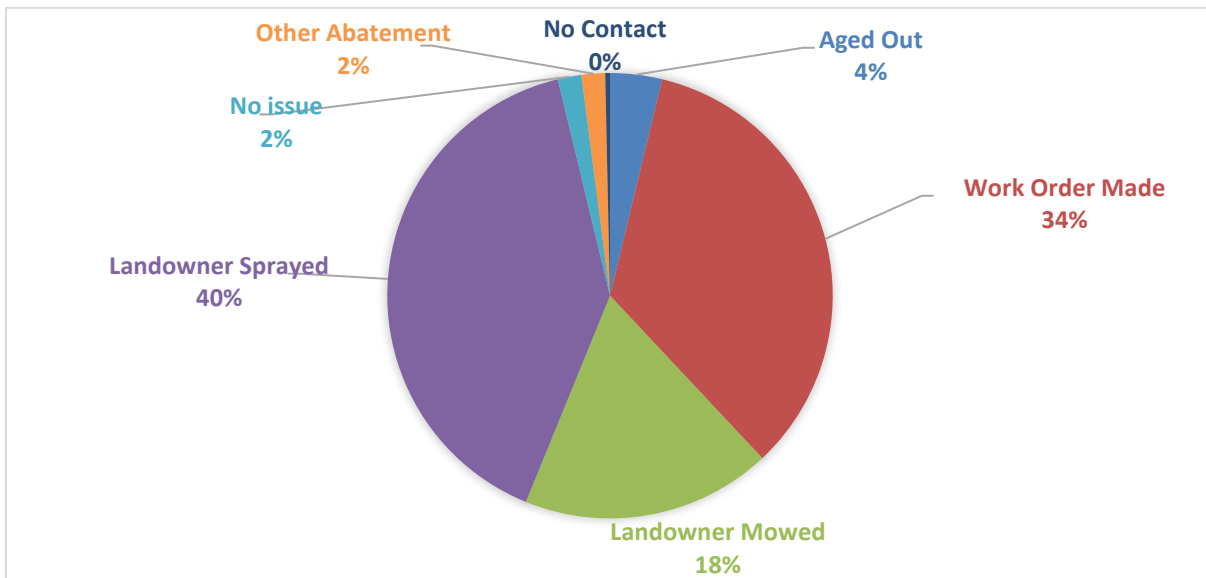


Figure 6: The percent distribution of enforcement letter results for 2020.

In 2020, approximately 34% of letters mailed resulted in work orders completed by ACNWC. ACNWC received 384 complaints from the public on weed issues, slightly less than in 2019 (decrease of 6%), a distribution map can be found on Appendix 1.1. Of these complaints and internally-created complaints, ACNWC sent out 325 letters to landowners for notification of noxious or nuisance weeds (see Fig. 7), this is 6% more than in 2019.

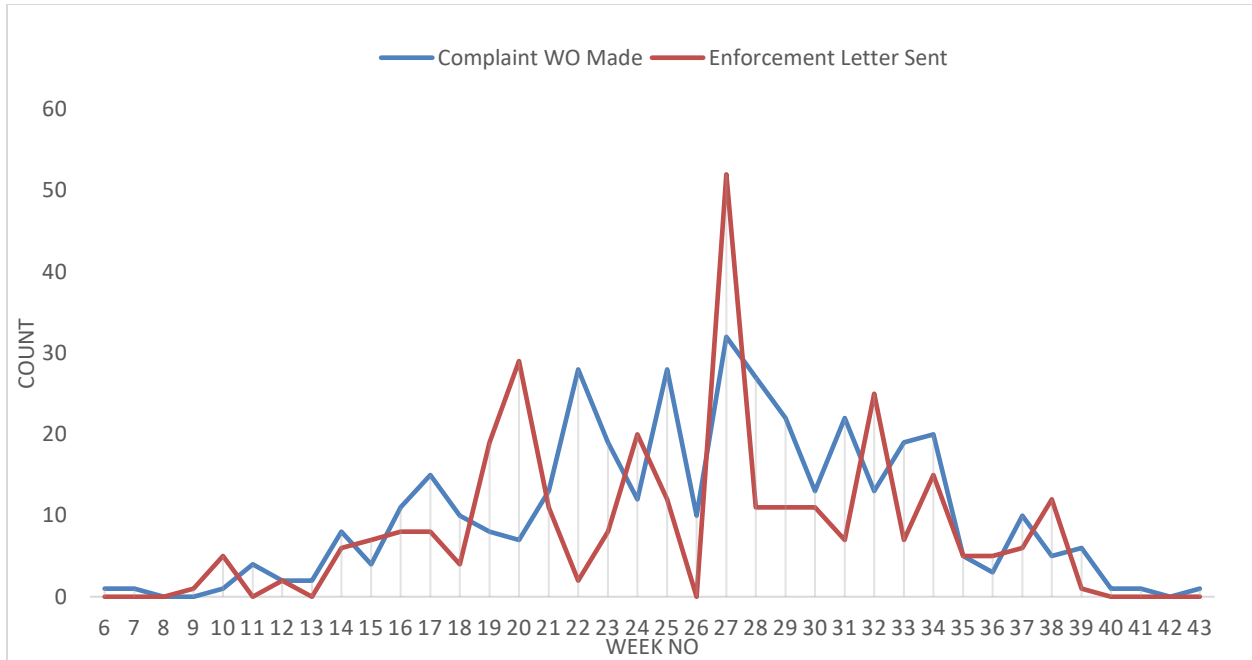


Figure 7: The count of public complaints per week and letters sent per week (x-axis) in 2020.

Aquatic Division

Ada County Noxious Weed Control performed a sampling of waterbodies in 2020 for the presence of noxious weeds. ACNWC visited 58 aquatic sites and 41 weed points were either created or updated. This survey will provide critical information to aid ACNWC in future control efforts.

The most abundant aquatic noxious weed found was Eurasian watermilfoil; it was found in 53% for the ponds surveyed. With hundreds of waterbodies in Ada County, this represents a large challenge for ACNWC to control. Conversely, Curlyleaf pondweed is less abundant, found in 9% of the survey locations. ACNWC also performed the first applications on Parrotfeather milfoil in May and follow up application in June in previously mapped locations isolated in Meridian near the Boise River vicinity. This plant was found in two ponds and a drainage ditch. Two landowners were actively controlling this noxious weed while the other landowner is employing ACNWC to treat the noxious weed. ACNWC will follow up in 2021 with further survey and treatments when noxious weeds are present.

Public Works Division

Biocontrols for noxious weeds

Biological control of weeds is the deliberate use of living organisms (mostly insects) to limit the abundance of a target weed (Winston et. al 2014). Biocontrol agents may attack a weed’s flower, seeds, roots, foliage and/or stems, and must go through rigorous testing through US Department of Agriculture APHIS-PPQ and Technical Advisory Group (TAG), which may take on average ten or more years before the agent is approved to be released as a biocontrol agent in the USA. While biological control can be effective, and biocontrol is an 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 or decades, and repeated releases to notice a change, or for impacts to be seen 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 that have become naturalized and widely-distributed in Ada County.

Likely due to the COVID-19 pandemic, there were no biocontrol releases sent to ACNWC and none released by our agency in 2020.

Biocontrol insects are not a silver bullet and even when successful, many times it may only contribute to about a 10% impact on the specific noxious weed 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 various public agencies to map, monitor, and/or control noxious weeds. In 2020, ACNWC worked with BLM, ITD, City of Boise (COB) Parks and Recreation and Open Spaces, Ada County Departments (Landfill, Sheriffs, Parks & Waterways, & Juvenile Detention), Idaho Fish and Game (IDFG), Idaho Department of Lands (ISDL), United States Geological Survey (USGS). In 2020, ACNWC treated approximately 190 acres on public lands within Ada County for noxious weed reduction or prevention. Figure 8 shows the acres treated by public agency.

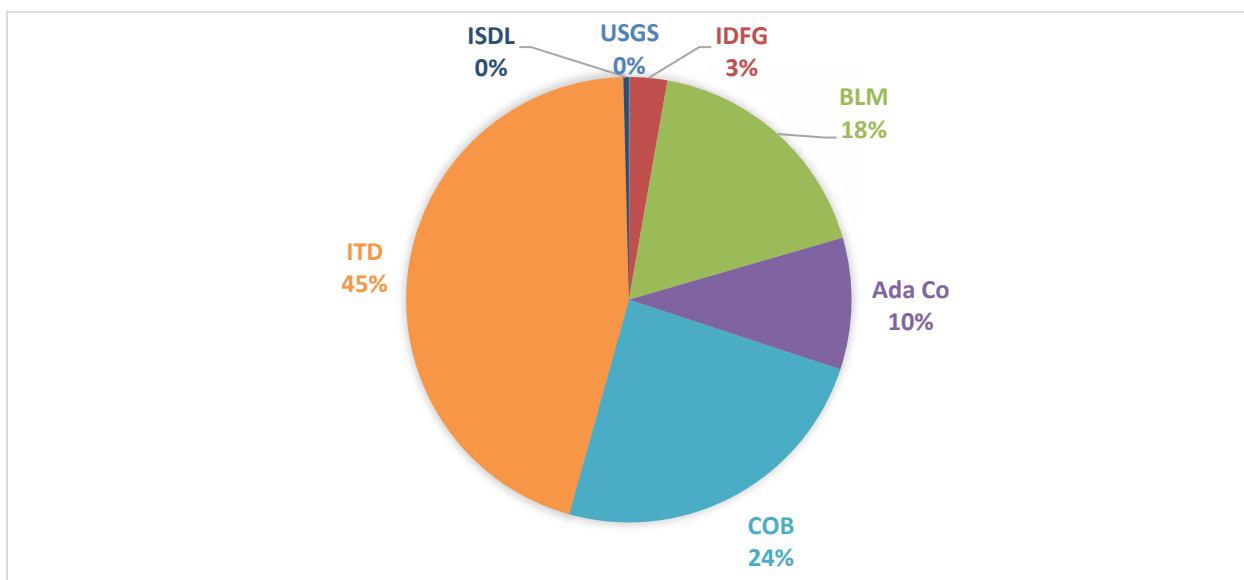


Figure 8: The chart above shows most of the acres treated by public agency in 2020.

Bureau of Land Management

During the 2020 noxious weed spray and survey season, ACNWC went out on 13 project areas at different times throughout the season. ACNWC completed the first applications on most project areas before June and surveyed an estimated 6,149.5 total acres and spent about 150 total hours either surveying and mapping noxious weeds or spot spraying noxious weed infestations (1,117.49 total spot treated acres with ~34 acres of worth of chemical used) on BLM lands within Ada County. Approximately 200 noxious weed infestations were mapped (115 new) and updated on BLM lands within Ada County, Idaho. ACNWC will follow up with projects that were not completely surveyed or treated this year in the following season and throughout the grant term ending in September 2021.

Idaho Transportation Department

In 2020, ACNWC completed work through a contract with ITD for noxious weed control on the state highways and ITD lands within Ada County. There was approximately 86.8 acres treated with 162.5 personnel hours of spot-spray control work for noxious weeds on Highways 21, 44, 20-26, 69, 55, & 16 and Interstate I-84.

Idaho Department of Fish and Game

ACNWC has worked over the years with IDFG on various projects to reduce and control invasive and noxious weeds in the Boise Foothills, Boise River Wildlife Management Area (WMA), and in important big game winter range habitat. In 2020, ACNWC treated 5.2 acres on the Wood Duck Island Preserve for Poison Hemlock and another IDFG property.

Ada County Parks and Waterways

Ada County Parks and Waterways (ACPW) provides diverse outdoor recreation opportunities. ACNWC has partnered with ACPW for several years to preserve these opportunities; this requires the control of noxious weeds on properties under the stewardship of ACPW. A majority of ACPW acres are turf and do not require ACNWC survey, however; there are some sites that are native riparian, aquatic, or upland sites and do require monitoring and occasional treatment for noxious weeds. ACNWC did a special project for invasive tree species in Barber Park (further defined in the project section of the report) in mid-February. ACNWC 3 project areas for a total of 10 acres treated and surveyed approximately 100 acres of ACPW properties, including previously known mapped areas along the Boise greenbelt in 2020 for Scotch thistle, Poison hemlock, Canada thistle and Houndstoungue.

Ada County Sheriff's, Operations and Landfill

ACNWC works with the Ada County Sheriff's Department and Ada County Landfill to prevent noxious weeds from growing on areas that must be weed-free, like radio tower locations and roadways to access electrical areas; ACNWC uses LTR to prevent weeds from emerging in areas such as these. In 2020, ACNWC treated approximately 8.33 acres (AC Sheriff's & Juvenile Detention Services & Operations), and 1 acre treated and additional mechanical removal of Scotch thistle (AC Landfill).

City Works in Ada County

In 2020, ACNWC works with various cities to control noxious weeds on specific parcels of city property. Out of all the municipalities within Ada County we worked primarily with the City of Boise (COB) in 2020 primarily with Open Spaces and then some Parks and Rec locations. Locations treated included Hulls Gulch, Green Belt under COB management, Ester Simplot Park, Chief Eagle Eye Reserve, Mesa Reserve, Hyatt Hidden Springs Wetland, and other smaller properties through Boise. A total of 125 acres were surveyed and spot-sprayed (approximately 46.5 acres) for Perennial sowthistle, Canada thistle, Scotch thistle, White top, Puncturevine and Poison hemlock.

Projects and Field Trials

Barber Park invasive species treatment; Russian Olives' removal

This was a multiagency & citizen project for Ada County Parks and Waterways and funded by Golden Eagle Audubon Society and Ada County Noxious Weed Control matching funds that was targeting Russian olives (*Elaeagnus angustifolia*), Siberian elm (*Ulmus pumila*) and Callery Pear (*Pyrus calleryana*) trees in Barber Park. These invasive trees grow especially well in riparian situations and has been documented as out-competing the native Black Cottonwood (*Populus trichocarpa*).

From February 18th through February 20th, ACNWC staff participated in a tree removal project primarily targeting Russian olive cut-stump treatments. Six ACWPM staff participated with crews of sawyers. Two to 3 staff members accompanied a sawyer from Sawtooth Tree Service who cut down the trees and ACNWC staff would come in behind and paint the stump with Element 3A. ACNWC staff also cut brush and aided the sawyer getting to trees to cut down. Volunteer citizens also assisted by cut and lopper suckers and trees with each crew working in the Barber Park Project Area. Approximately 67 acres were cleared of these trees and 28 weed points were updated or created for Hounds tongue, Scotch thistle, Canada thistle, Spotted knapweed, Rush skeletonweed and Whitetop. See Appendix 1.3 for map points and pre-treatment canopy coverage and photos.

USGS on ITD plots, series 2

ACNWC assisted as spray applicators in a collaborative project with ITD and USGS for the control of cheatgrass to help analyze multiple method approach (biocontrol, mechanical control in addition to herbicide treatments) and is a second part treatment from the 2019 USGS project. ACNWC treated the test plot area again on November 24, 2020 using a couple of herbicides, Battalion and Plateau at different rate and spraying 3 plots of 0.04 acres each. This project will continue for assessment in future and within the 3-5 year range.

Conclusion

Ada County Noxious Weed Control Department was declared a necessary department in the wake of the global pandemic that hit Idaho in early spring 2020. ACNWC was still needed and so staff stepped up through the uncertainty of the future to continue to provide noxious weed control services to the residents of Ada County. The team was limited to not work in pairs unless driving in separate vehicles and maintaining social distances to help reduce risk of potential exposures through recommend health precautions throughout year. With the pandemic, there could have been a possible increase in services requested with residents staying home all day or outside and seeing weed issues on properties;

however, ACNWC did not observe a significant increase in noxious weed spray work orders or public complaints. ACNWC saw an about average normal work load and fortunately had 80% staffing on hand to work from early spring into summer and fall. While there were some residents that did not seek work out this season that have normally contacted ACNWC; there were many other residents that we have helped historically with noxious weed problems that ACNWC got to socially distance meet. Ultimately, ACNWC staffing was able to keep up to normal work loads and covered as needed to help the community to continue to control noxious weeds.

ACNWC completed 1391 weed spray workorders and sent out 325 enforcement letters to the public to control noxious weeds on their properties. There was a total of 656 newly mapped points and worked on various public lands projects. Some of the areas of concern, like the EDRR Yellow starthistle areas had more survey and monitoring completed and work orders created but had less treatments which may be due to less area to treat from 2019 due to the success of control. This will be analyzed and looked at even more in 2021.

Additionally, this year Ada County was able to do some aquatic weed survey work and some small treatments of aquatic noxious weeds for the first time in many years.

The following list is a general summary of 2020 noxious weed control department activities:

- Increased mapped noxious weed points by 1% from 2019.
- Continued to control known infestations of EDRR weeds within the growing season
- Increased cooperation between municipalities and state agencies to control noxious weeds on public lands
- Continued to implement revised action plan and five-year strategic plan

Overall for the season, the amount of work accomplished has continued to increase steadily in the last 2 years. ACNWC continues to have accomplished as much with less available and experienced labor, pandemic setbacks, and other environmental factors that are par for the course. 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 2020...

1. Restructure weed department to continue to improve needs of the community and realign and support updated Strategic and Action plans, work on phase 2 of the restructure and analysis of plans.
 - ✓ *In Progress with assessment and program of year 2.*
 - ✓ *There was an increase in mapped locations, an increase in acres treated, an increase in compliance education and enforcement letters and work orders made from compliance activity, and some minor aquatic applications occurred at the very end of the year.*
2. Develop training programs for season start, and mid-year training of full-time and seasonal staff by documenting training rubric completion and internal seminars, training, and testing.

- ✓ *With the COVID-19 safety precautions, we were not able to complete in house structured 10 day training regime with the 2 new full time field technicians and had to adapt training to one on one.*
- 3. 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 by 25% or more.
 - ✓ *There was a slight increase in mapped points from 2019 of 1%, likely due to priorities and available staffing levels.*
- 4. Increase integrated weed management practices by creating public land management templates, education materials, and increase public consultation and education events by 15% or more.
 - ✓ *All in person public education events were cancelled due to COVID-19, however when requested some LMP's were created remotely and public consultation by field technicians were completed over the phone or through social distancing practices in the field.*
- 5. Implement and increase presence of aquatic division in noxious weed control by increasing aquatic weed control applications by 25%, assist with an invasive aquatic check station, treat previously mapped aquatic weeds from 2019 and follow-up with landowners on those known infestations.
 - ✓ *As there were very little aquatic applications in 2019, there was a significant increase in 2020 for aquatic sampling of 58 survey locations and an overall increase in acres treated from 2019.*
- 6. 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.
 - ✓ *On hold for 2020 due to COVID-19 pandemic, all conference and trainings were cancelled after emergency declaration for United States.*

Goals for 2021...

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 and develop annual goals. The following goals will be worked on in 2021; some of these goals are carried over from 2020 as they may be ongoing or multi-phase goals:

1. Restructure weed department to continue to improve needs of the community and realign and support updated Strategic and Action plans, work on phase 2 of the restructure and analysis of plans. Develop assessment of restructure for reporting in 2021.
2. Develop mid-year training and assessments of full-time and seasonal staff by documenting training rubric completion and internal seminars, training, and testing.
3. 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 by 10% or more and update existing weed points within crew areas.

4. Increase integrated weed management practices by creating public land management templates, education materials, and increase public consultation and education events by 15% or more.
5. 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 2020 and follow-up with landowners on those known infestations.
6. 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

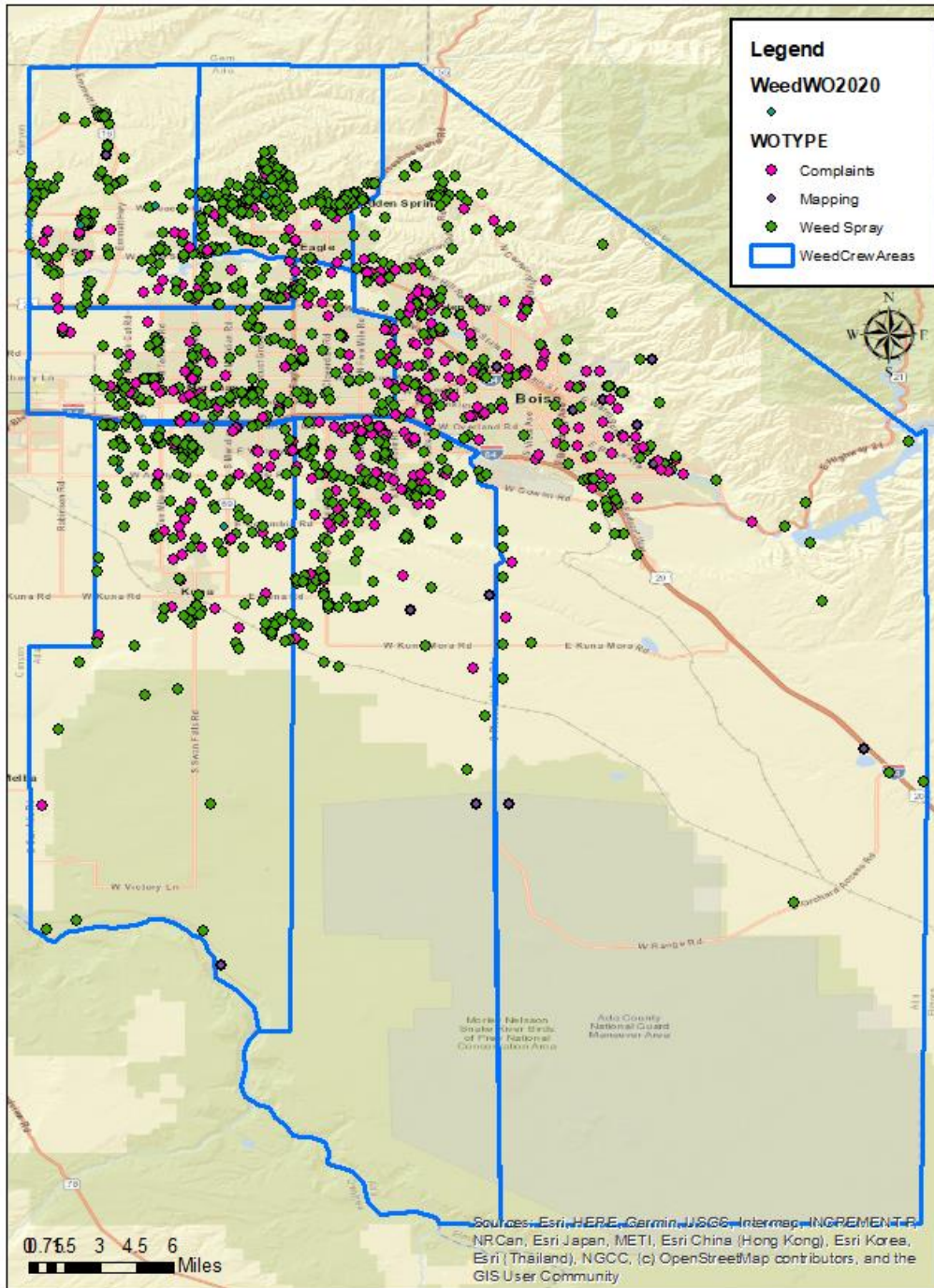
Winston, Rachel, Randoll Carol Bell, et. al. 2014. Field Guide for the Biological Control of Weeds in the Northwest. USDA & University of Idaho.

Biocontrol Insects supplied by Nez Perce Bio-Control Center; 22776 Beaver Grade, Lapwai, ID 83540.

Appendices

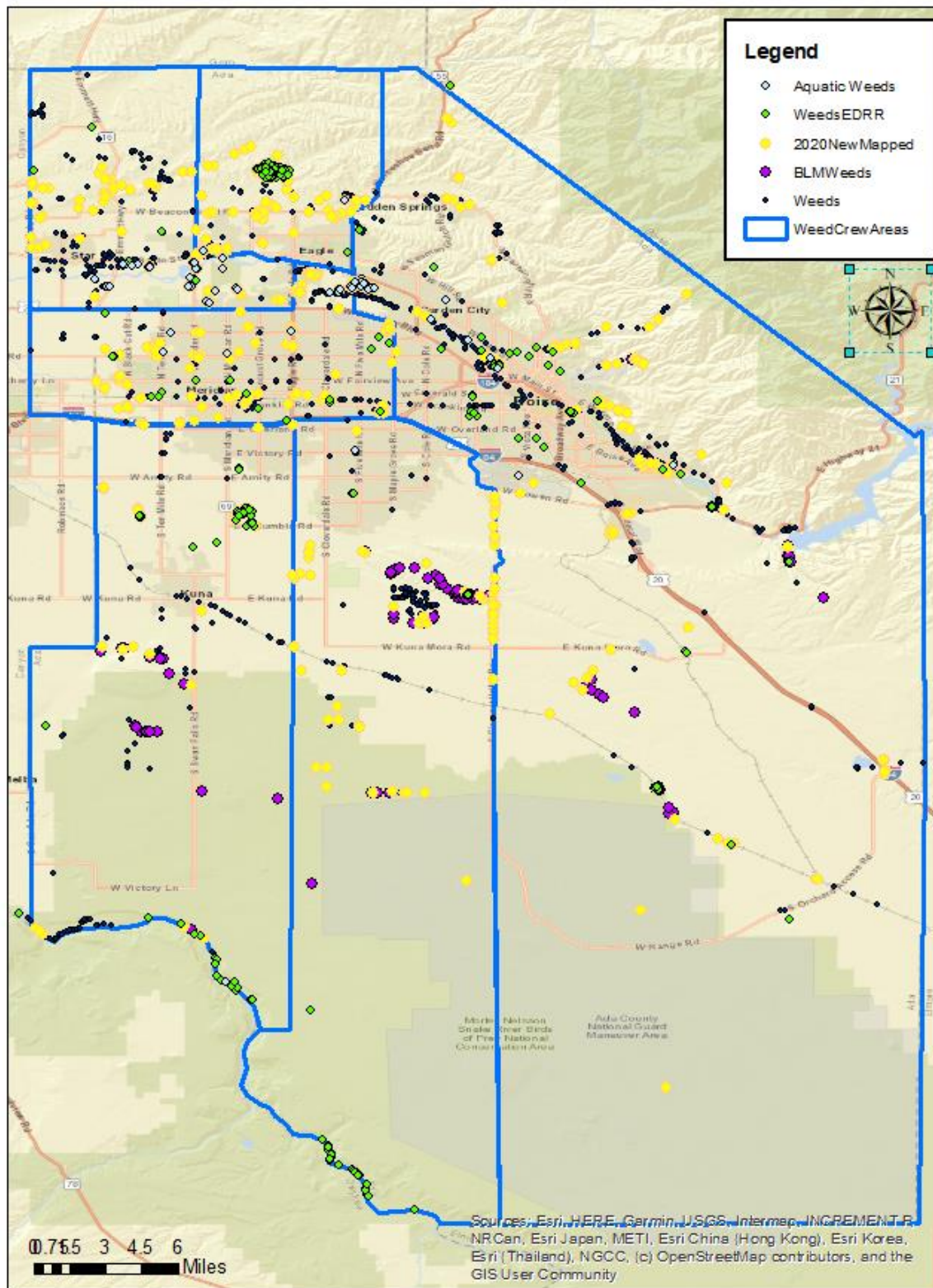
Appendix 1.1

Distribution map of noxious and nuisance weed and public complaint work order requests in 2020



Appendix 1.2

Distribution map of noxious weed points mapped as active sites from 2015-2020



Appendix 1.3

Barber Park Russian Olive removal project.

Map of marked Russian olives prior to cut-stump treatment:



Canopy Coverage of mapped trees:

