



ADA COUNTY NOXIOUS WEED CONTROL

2019 Annual Report

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1/13/2020

Contents

2019 Annual Report	1
Mission Statement.....	4
General Department History and Planning.....	4
ACNWC Management and Staff	4
Training and Education.....	4
Memberships, Affiliations, & Grants.....	5
Integrated Weed Management and Weed Categories	5
Public Education	6
Public Service Requests	6
Weed Control Work & Climate Data	9
New Invaders 2019	10
EDRR.....	11
Noxious Weed Species Composition Data.....	12
Compliance and Enforcement Activities	13
Public Works Projects.....	14
<i>Biocontrols for noxious weeds</i>	14
<i>Interagency collaborations for noxious weed control</i>	15
<i>Bureau of Land Management</i>	15
<i>Idaho Transportation Department</i>	16
<i>Idaho Department of Fish and Game</i>	16
<i>Ada County Parks and Waterways</i>	16
<i>Ada County Sheriff's and Landfill</i>	16
<i>City Works in Ada County</i>	17
<i>In 2019, 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 in 2019. Locations treated included Simplot Sports Complex, Marianne Williams Park, Ada County Green Belt, Ester Simplot Park, and many more. A total of 93.65 acres were surveyed and spot-sprayed (approximately 101.02 acres) for Canada thistle, Scotch thistle, White top and Poison hemlock.</i>	17
Projects and Field Trials	17
<i>City of Boise Open Spaces Division Plots</i>	17
<i>USGS Forest & Rangeland Ecosystem Sciences Center tests on ITD plots</i>	17
Conclusion.....	17

ACNWC Goals..... 18
 Goals for 2019..... 18
 Goals for 2020..... 19
Resources 19
Appendices..... 20
 Appendix 1.1 20
 Appendix 1.2 21
 Appendix 1.3 22
 Appendix 1.4 23

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 2019. 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 an increase of documented and additional structural training of 18.5% from 2018 with a full-time employee turnover of 5, an increase from 2018 (n=2).

2019 Seminar/Training	People Sent	Hours	Total Hours
ATV Certification	4	3	12
SWIWCA Spring Meeting	3	8	24

ID Noxious Weed Conference	9	32	288
ID Weed Superintendents Meeting	2	12	24
SWIWCA Fall Meeting	7	8	54
Internal Training all FT Weed Staff	11	Lot	1892
Total Hours in Training			2294

Figure 1: External and internal training seminars and conferences for full-time and seasonal staff in 2019.

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)
- Southwest Idaho Weed Control Association (SWIWCA)

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. ACNWC spent approximately 180 hours of our season specifically on public education alone, not specifically counting the day-to-day work that we do with landowners.

Here is a list education and outreach conducted by ACNWC in 2019:

- Several social media posts through Facebook and NextDoor
- Public presentations at the Harris Ranch Wildlife Mitigation Association, Banbury HOA
- Boise Bicycle Project and City of Boise's *Boise Goathead Festival*
- The Western Idaho Fair (
- The many face to face interactions of field staff and the public when working on a daily basis during the weed season.

Public Service Requests

ACNWC started receiving public service requests in January of 2019, 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, our 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. 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.

The weed control season began on March 14th (week 10) and resumed until the week of November 11th (week 45) for 272 consecutive days of work. ACNWC recorded the first service call on January 9th; and in total, 1764 calls for weed control service or consultation were received from the public, 1069 work order service requests were derived from these calls (distribution map on Appendix 1.1), and 1173 invoices were completed during that timeframe. Figure 2 demonstrates the numbers of invoices and acres treated by target site type.

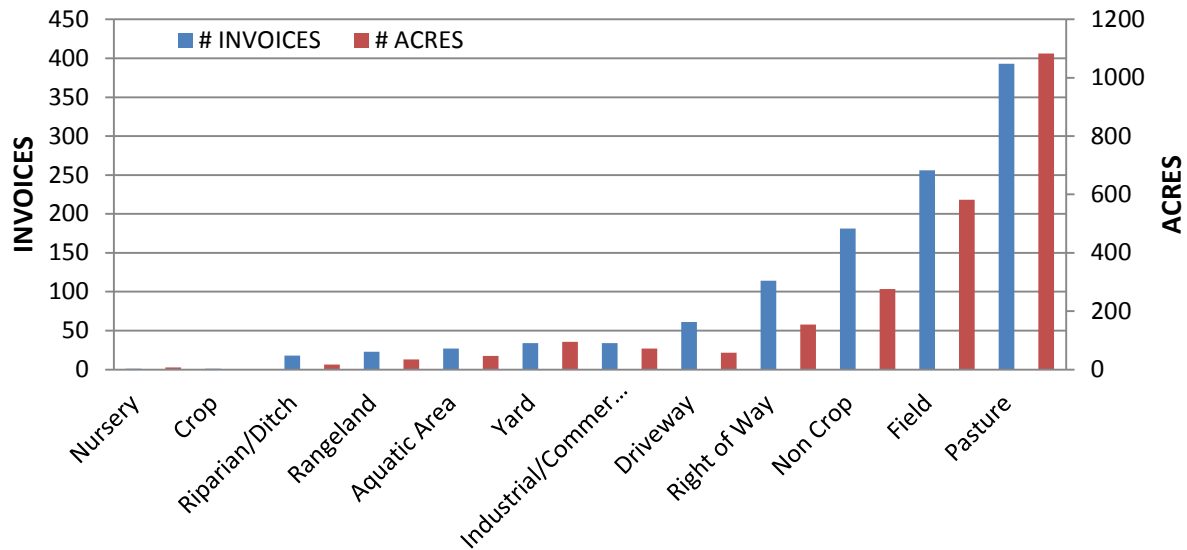


Figure 2: The count of invoices and acres treated by target site type for 2019.

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 Ada County were pasture, field, and non-crop. ACNWC treated over 2,512 acres in 2019 which is 12% more than in 2018 (n=2,239 acres). Figure 3 displays the percentages of each primary the weed species that we have taken control actions on. Additionally, 85% of invoices in 2019 were targeting noxious weeds, with the remaining work controlling nuisance or invasive weeds. The listed weeds species (*Fig. 3*) were the primary target species for the work order, however many properties have more than one species. The largest percentage of work in noxious weed control was with Puncturevine (38%) followed by Hoary cress, also known as Whitetop (11%). 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. 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.

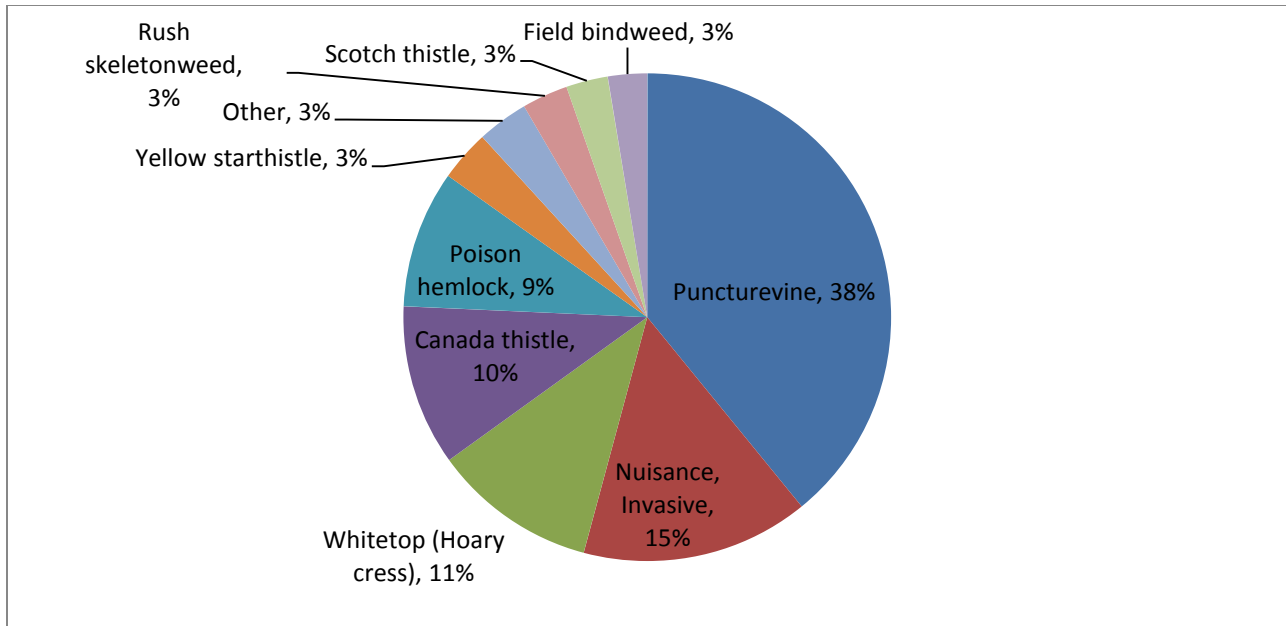


Figure 3: The above chart shows percentages of nuisance and noxious weeds targeted in work orders for 2019; “other” includes Spotted knapweed, Houndstongue, Purple loosestrife, Black henbane, Dalmatian toadflax, Parrotfeather milfoil, and Perennial sowthistle.

Consistent with most environmental services, controlling noxious weeds is seasonal and climate-dependent. When ACNWC gets calls for assistance on private and public lands, there has been a lag time historically (*Fig. 4*) in response and completion of work requested. When this is reviewed by quarter, early spring is typically the busiest time of year, and the average response time is delayed due to a shortage in staff and resources (n=41.7 days). A fair number of 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 response time was quicker (within 26 days on average). In late summer and fall of 2019, the service response goal was to make contact and respond to requests within ten business days, versus the early spring a response time of 20-30 days. Fifty percent of the field technicians were new in 2019 and needed to be trained by senior field technicians, this also impacted response time, so instead of five or six vehicles in service, there were only three trucks available (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)

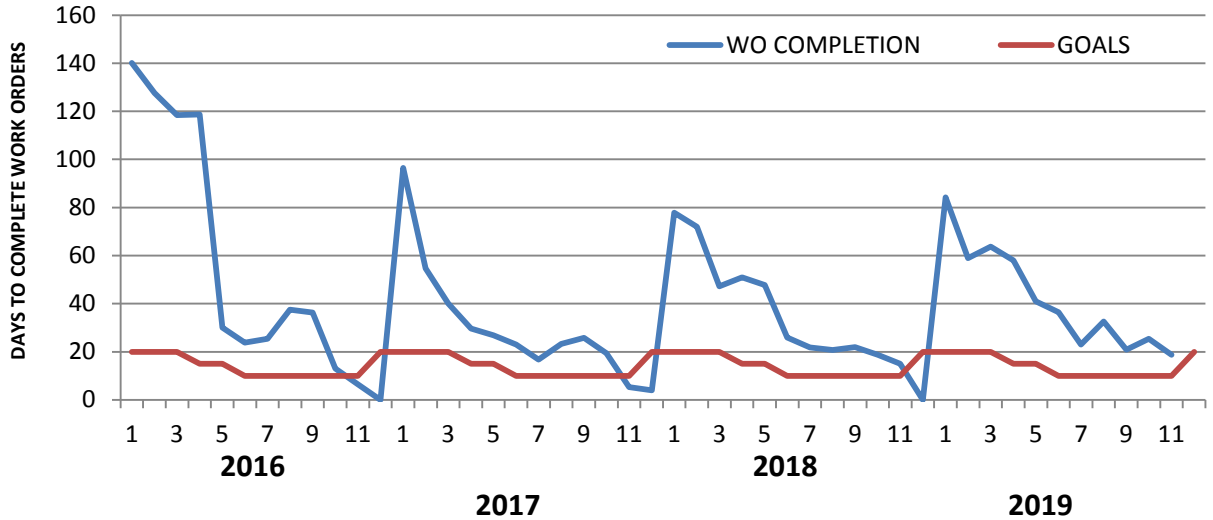


Figure 4: The figure above shows average days to complete work orders by month on the x-axis with goal average response time.

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 m.p.h are relatively rare and impact crews infrequently.

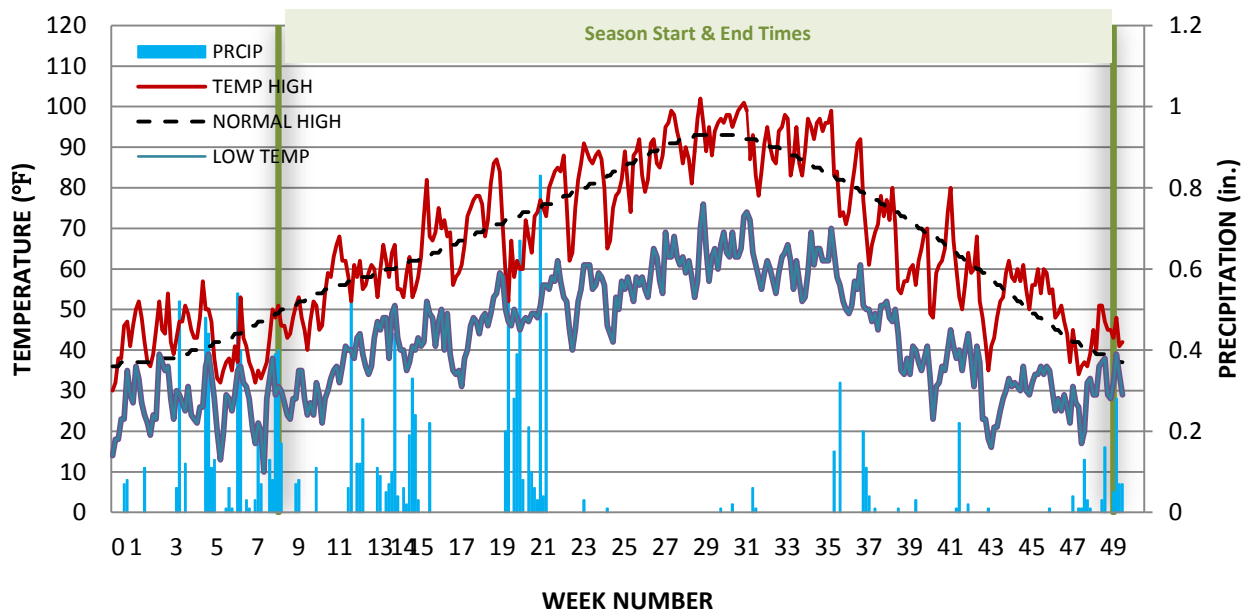


Figure 5: The figure above shows the minimum, maximum and normal (30 year avg. from 1981-2010 NOAA) temperatures, and precipitation in rain and snow by week for 2019.

In 2019, there was four in. of precipitation in weeks 19 through 21. Because of this late precipitation, the crews were delayed in treatments by two weeks (*Fig. 5* and *Fig. 6*). The 2019 spring and summer climate was at, or above, the 30-year normal, however; the fall had nine weeks of cooler-than-normal weather. There was also higher-than-normal late winter (2018-2019; before wks. 1-6) temperatures allowing noxious weeds to germinate earlier-than-normal (*Fig. 5*). The fall's mild temperature extended the control season in 2019 for fall germinating weeds, biennials, and winter annuals.

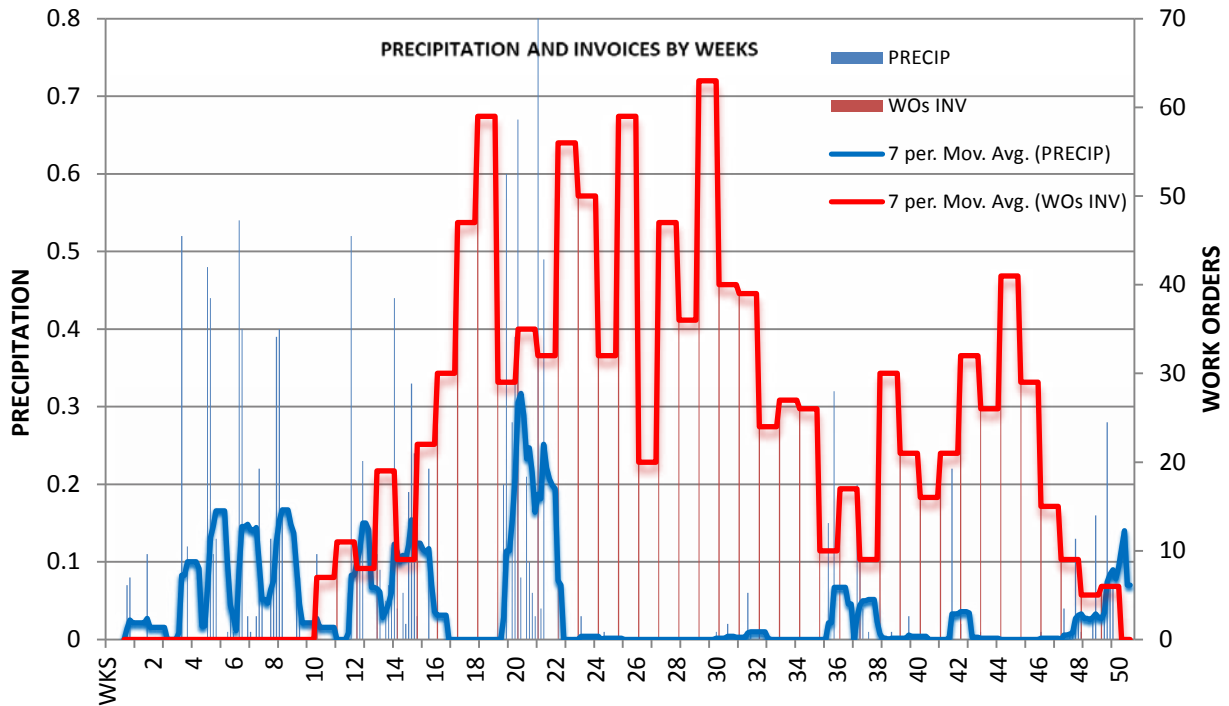


Figure 6. The figure above shows invoices completed and precipitation by week number in 2019.

New Invaders 2019

In 2019, ACNWC discovered, mapped and treated two new noxious weed invaders. Approximately 13 acres of land where these weeds were detected were inspected and 1.68 acres treated with the goal of eradication in 2019-2020. We implemented control measures that follow our strategic and action plans, on these two new species, both of which are EDRR species in Ada County (*Appendix 1.3, photo*).

One new infestation of Hoary alyssum (*Berteroa incana*) was treated after a public complaint came in on a neighboring property. This is an EDRR noxious weed, and this species is toxic to horses. When discovered, this infestation was small, approximately 100 ft.² and is believed to be introduced from a bird feeder with imported seed. Previous to treatment, ACNWC hand-pulled and removed the weeds, and about 45 lbs. of soil (approximately 104.5 lbs. of total material). There was an estimate of 100% control in 2019, but the site will continue to be monitored for

the next few growing seasons to determine if the weeds have been eradicated or follow-up treatment is necessary.

Perennial sowthistle (*Sonchus arvensis*) was discovered in a Boise City public park in late-summer. The infestation occupied approximately 1.6 acres. A treatment was completed shortly after identification, however; a number of these plants had begun to go into dormancy at the time of treatment, and it is unclear how effective the control of this noxious weed was. This species is an EDRR weed in Ada County, and will be monitored and treated with the goal of eradication within two years.

EDRR

ACNWC has documented some previously-known EDRR species of noxious weed infestations. When these species are found, the priority of ACNWC is 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 2019 (map and photos found in Appendix 1.2 and 1.3).

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 and all new and existing mapped locations were treated in 2019 (most of them were treated twice). Several site visits and multiple treatments were required due to time of year and environmental factors. In total, 24 work orders were made, and 24.26 acres treated, including two landowners that requested hand-pulling control measures. In 2019, ACNWC mapped 42 new sites, which is a two-fold increase of mapped locations from previous years.

This EDRR weed can be difficult to control because of its phenotypic characteristics, fecundity, and its aggressive resource acquisition. Because of this plant's camouflage in foothill environments, and its ability to quickly spread, eradication of the Hondo infestation is not expected within two years. However, the site will be vigorously monitored, and treated regularly to reduce distribution. Two smaller infestations within the Hondo site boundaries should be eradicated within three 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, ACNWC will partner with the landowner to apply an herbicidal treatment, in addition to hand-pulling in attempts to eradicate this noxious weed.

Black henbane (*Hyoscyamus niger*), a toxic EDRR weed, has a small infestation in southern Ada County and has been recurring for about ten years. Recently, this EDRR noxious weed population has been reduced to about 100 plants. One of its secrets to success is the fact that it can produce between 10,000 and 500,000 seeds per plant, and can remain viable in the soil for up to five years. This noxious weed has not flowered in two years due to our continued

monitoring, and consistent treatment of newly-germinated plants. It is expected that we can eradicate this plant within three years, through aggressive and consistent monitoring and treatment.

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. In 2019, approximately 31,505 ft.² were mapped over five distinct sites, over 21,000 ft.² of that has canopy cover of approximately 10%. A total of 17,429 ft.² was treated in 2019. In 2020, a greater success is expected because this plant will be treated earlier in the season, however; continued monitoring for several years is required.

Noxious Weed Species Composition Data

In 2019, ACNWC mapped 647 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 7 below. There was a seven-fold increase of in mapped weeds from 2018 to 2019. One priority in 2019 was to get a more accurate and current noxious weed inventory, with efforts focused on public lands and greenbelt pathways in Ada County over the next five years. ACWNC spent approximately 223 staff hours mapping in 2019.

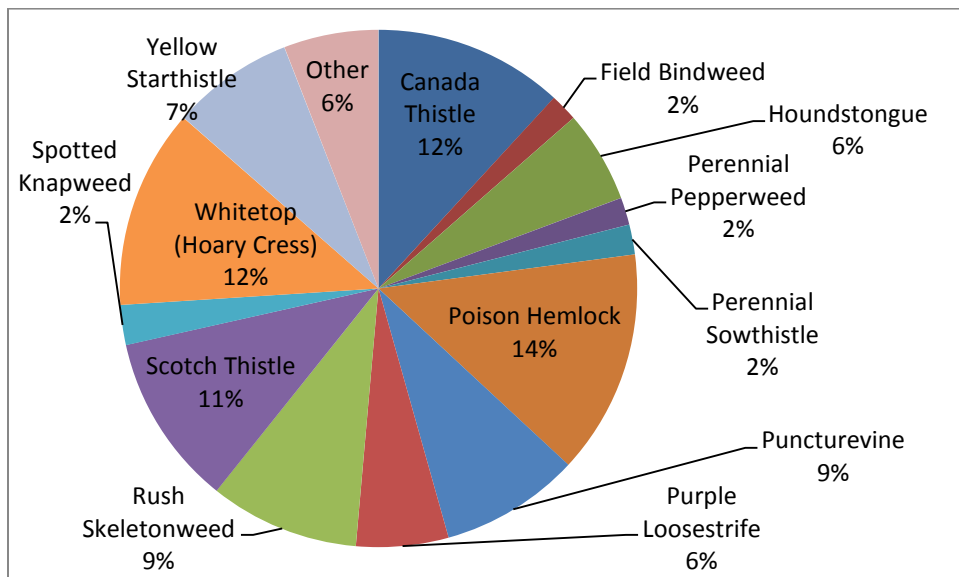


Figure 7: Percent breakout of new mapped weed infestations in 2019 by species.

Compliance and Enforcement Activities

ACNWC is the enforcement authority in Ada County for noxious weeds; we have Compliance Leads that operate under the authority of the Ada County Weed Superintendent, who 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 and Ada County IWM, a certified legal letter was sent to the landowner for notification or posted to the non-compliant property. Figure 8 displays the response to enforcement letters sent out in response to public and internal complaints for control of noxious weeds in 2019.

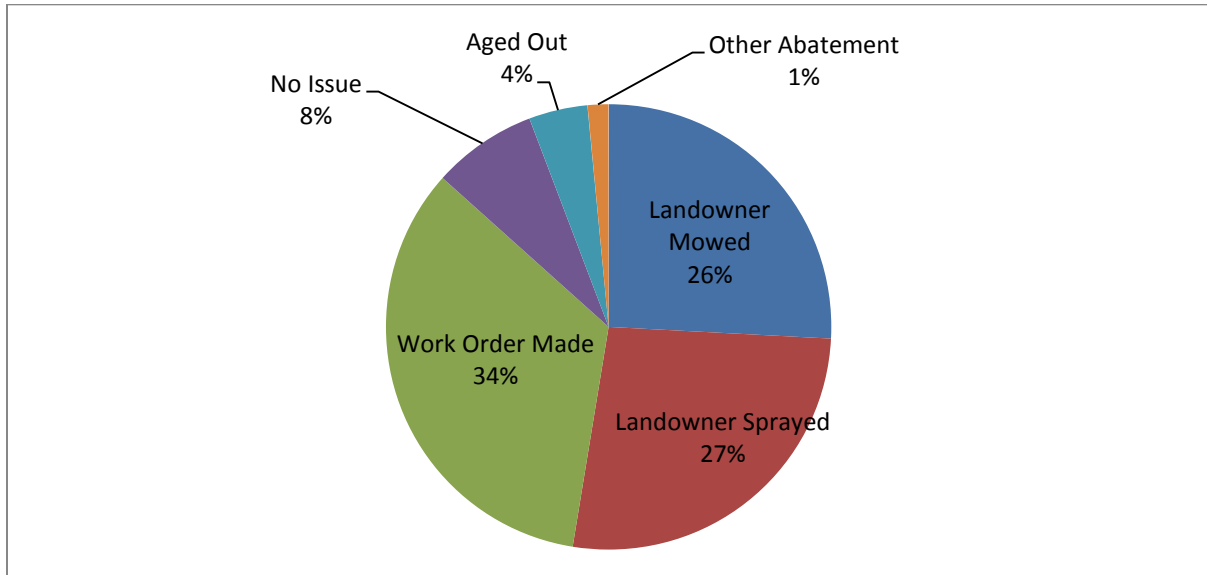


Figure 8: The percent distribution of enforcement letter results for 2019.

In 2019, approximately 34% of letters mailed resulted in work orders completed by ACNWC (almost twice as many as in 2018). ACNWC received 407 complaints from the public on weed issues, 43.3% more than in 2018, a distribution map can be found on Appendix 1.1. Of these complaints, and internally-created complains, ACNWC sent out 306 letters to landowners for notification of noxious or nuisance weeds, this is 68.1% more than in 2018. Figure 9 displays the count of complaints with a possible noxious weed issue, and the letter response to those public and internal complaints.

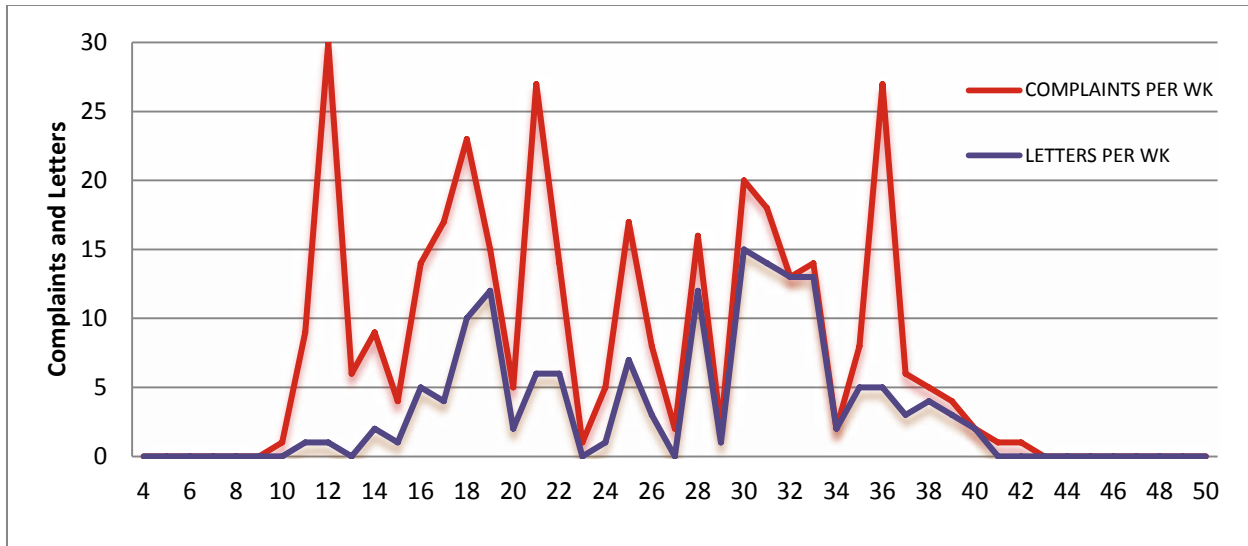


Figure 9: The count of public complaints per week and letters sent per week (x-axis) in 2019.

Public Works Projects

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.

In 2019, ACNWC released 4 different biocontrol agents (n=1600 insects) in various locations throughout Ada County with the hopes that the insects will become established and create insectaries for long-term control of targeted weed species. The biological insects released in 2019 were:

- Four releases of *Hylobius transversovittatus* (Purple loosestrife root-feeding weevil) for Purple loosestrife (*Lythrum salicaria* L) on 5/30/2019
- Two releases of *Galerucella* spp. (Purple loosestrife beetle) for Purple loosestrife (*Lythrum salicaria* L) on 7/9/2019
- Three releases of *Cypholocleonus achates* (Knapweed root weevil) for Spotted knapweed (*Centaurea stoebe*) 9/6/2019 and 9/9/2019

- 1 release of *Bradyrrhoa gilveolella* (Rush skeletonweed root moth) for Rush skeletonweed (*Chondrilla juncea*) on 8/6/2019

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 2019, ACNWC worked with BLM, ITD, City of Boise Parks and Recreation, Ada County Departments (Landfill, Sheriffs, Parks & Waterways, & Juvenile Detention), Idaho Fish and Game (IDFG), Idaho State Parks and Recreation (ISPR), United States Geological Survey (USGS). In 2019, ACNWC treated a total of 253.5 acres on public lands within Ada County for noxious weed reduction or prevention. Figure 10 shows the acres treated by public agency.

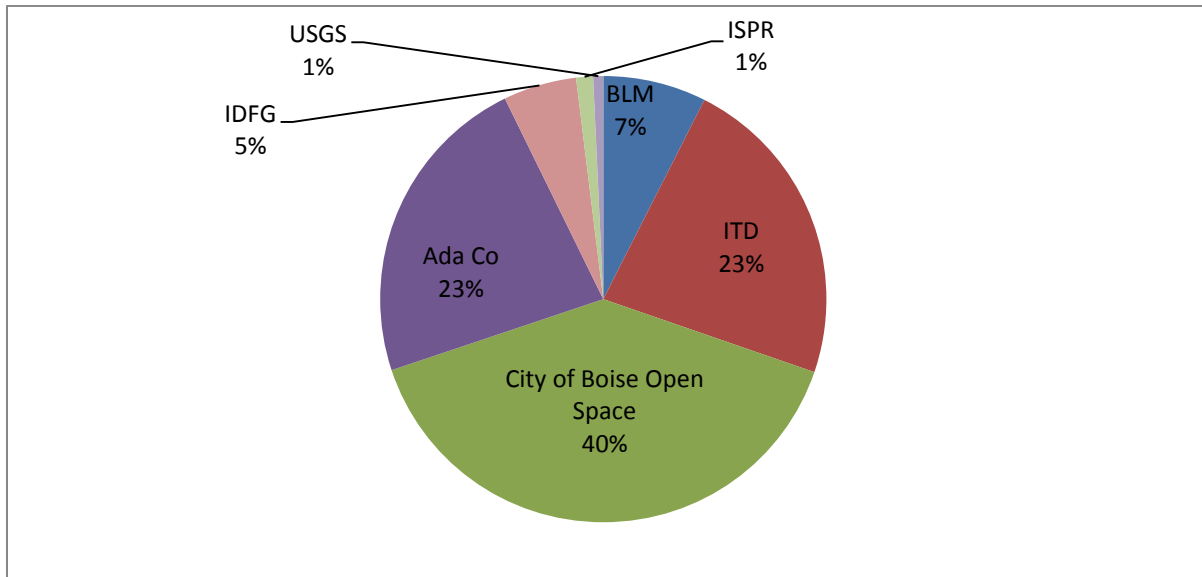


Figure 10: The chart above shows the majority of acres treated by public agency in 2019.

Bureau of Land Management

During the 2019 noxious weed spray and survey season, Ada County Weed Control completed work on 12 project areas at different times throughout the season. Due to lack of labor resources this year, we were limited to only survey and mapping on some of the projects. In 2019, ACNWC surveyed 4,408 total acres and with an estimate of 107 total man hours completed both surveying and mapping noxious weeds, or spot-spraying infestations (n=15.4 total treated acres) on BLM lands. Fifty new infestations were mapped, and 144 weed points were monitored from previously-existing noxious weed locations on BLM lands. We 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 2021.

Idaho Transportation Department

In 2019, 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 78.8 acres treated with 163.5 man hours of spot-spray 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 2019, ACNWC treated 10.92 acres on the Boise River WMA to control Rush skeletonweed and other invasive weeds in the spring, and Wood Duck Island Preserve for Poison Hemlock.

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. Four trails and a wetlands park were spot-sprayed this year for noxious weeds; these were the Eagle Bike Park, Boise River greenbelts, the Oregon Trail Historical Site and Victory Wetlands (surveyed two acres and treated 1.48 acres). Through the use of our ATV and backpack sprayers, we were able to spot-spray about 14.74 acres along the trails and park for control of noxious weeds like Rush skeletonweed, Puncturevine, Canada thistle, White top and Spotted knapweed.

Ada County Sheriff's 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 2019, we treated approximately 5.21 acres (AC Sheriff's & Juvenile Detention Services) and 28.17 acres (AC Landfill).

City Works in Ada County

In 2019, 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 in 2019. Locations treated included Simplot Sports Complex, Marianne Williams Park, Ada County Green Belt, Ester Simplot Park, and many more. A total of 93.65 acres were surveyed and spot-sprayed (approximately 101.02 acres) for Canada thistle, Scotch thistle, White top and Poison hemlock.

Projects and Field Trials

City of Boise Open Spaces Division Plots

The City of Boise and ACNWC control worked together to look at annual grass control in fire prone areas near the Boise foothills where city sprawl is reaching into high risk fire areas due to the abundance of annual grasses. ACNWC sprayed three one-acre plots of cheatgrass using Esplanade for a second control option analysis.

USGS Forest & Rangeland Ecosystem Sciences Center tests on ITD plots

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). Three complex test plots were designed and plotted at the Eisenman off ramps east of I-84, east of Boise. The purpose of these test plots was to evaluate an experimental bacterium ACK-55 (*Pseudomonas fluorescens* strain ACK-55). This bacterium has shown some promise in controlling Cheatgrass (*Bromus tectorum*) by diminishing root cell elongation and tillering; reducing overwintering success and seedling vigor; lowering seed production; and reducing viability of the seed bank. The three plots were identical in size, 120 feet by 180 feet. The long side is divided by six equal length 30 foot rows (Appendix 1.4). The rows were treated with combinations of ACK-55, Imazapyr and Esplanade. This treatment and project will take 3 to 5 years for assessment.

Conclusion

In 2019, the Ada County Noxious Weed Control Department transitioned into the first phase of a restructure early on, and hired new staff to help implement more efficient work flows in continuing efforts to achieve objectives of the five year strategic plan of the department. With the new staff came limitations, but through a newly-integrated training program, ACNWC was able to get personnel trained quickly to provide services to the residents. While the early spring was relatively mild, late rains in May delayed opportunities to respond rapidly to public service requests. Moreover, these late rains and cool temperatures also extended the growing period of some noxious weeds and also allowed for a second germination of many early spring species in 2019 that normally do not occur, resulting in more noxious weeds.

The summer was typical, and eventually we were able to respond to public service requests and complaints in a more timely and efficient manner by late fall. ACNWC was able to increase complaint

responses and assist landowners through public education about controlling noxious weeds where they can. Additionally, because of the restructure, ACNWC saw direct improvement of efficiencies by the compliance division. Compliance activity increased by 68% (notified letters served) over last year's totals, and the response time was approximately ten days for the yearly average.

The following list is a general summary of 2019 noxious weed control department activities:

- Increased mapped weed distribution points
- Detected and controlled two new infestations of EDRR weeds within the growing season
- Increased public education and weed control through ongoing compliance and educational outreach activities
- Hired new staff and implemented a more comprehensive and consistent training program
- Released several biocontrol insects on commonly-distributed noxious weeds
- Increased cooperation between municipalities and state agencies to control noxious weeds on public lands
- Developed and implemented revised action plan and five-year strategic plan
- Restructured division of duties and developed regional approach to county-wide activities

Overall for the season, the amount of work we accomplished is similar to 2018, however; we are proud to have accomplished as much with less available and experienced labor. ACNWC will continue to evaluate ways to reduce work order response times, retain skilled labor, and reduce or eliminate some remaining business bottlenecks in 2020 and beyond.

ACNWC Goals

Goals for 2019...

1. Restructure weed department to continue to improve needs of the community and realign and support updated Strategic and Action plans.
 - ✓ *Completed Phase 1, In Progress with assessment and program.*
 - ✓ *There was an increase in mapped locations, an increase in acres treated, a decrease in response times for work orders, an increase in public consultations, 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 and continue to improve upon training programs for start of year and mid-year training of full-time and seasonal staff.
 - ✓ *Implemented a new structure 10 day in class and field training of new and full-time staff. In progress for mid-year assessments and continuing education and training classes; there was an increase in training hours by 18.5%.*
3. Hire new full-time staff to support the needs of the department.
 - ✓ *In Progress— due to the turnover of staff this season ACNWC is looking to fill three Spray Technician positions, however; a new Division Control Coordinator was hired.*

4. Increase mapped weeds of concern and make plans for control and reduction of noxious weeds moving forward.
 - ✓ *There was an increase in mapped weeds by over 700%.*
5. Increase integrated weed management practices and consultation services to the public.
 - ✓ *There was an increase in compliance education letters by 68% and an increase in estimated public education and consultation times by staff due to more availability of field staff to the public through restructure and the response time reduction for the year.*

Goals for 2020...

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 2020; some of these goals are carried over from 2019 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.
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.
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.
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 25%, assist with an invasive aquatic check station, treat previously mapped aquatic weeds from 2019 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

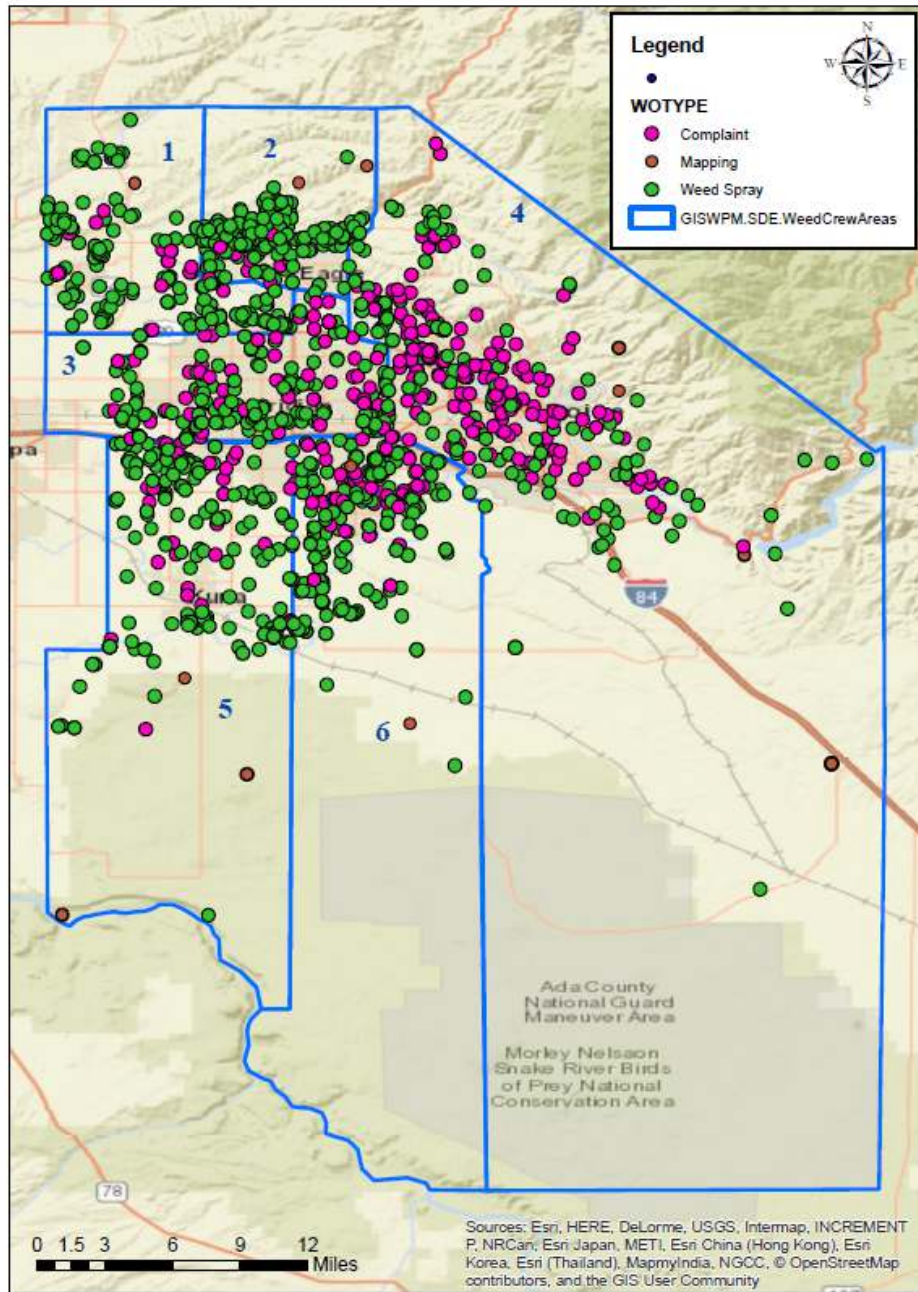
Winston, Rachel, Randoll Carol Bell, et. al. 2014. Field Guide for the Biological Control of Weeds in the Northwest. USDA & University of Idaho.

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 2019

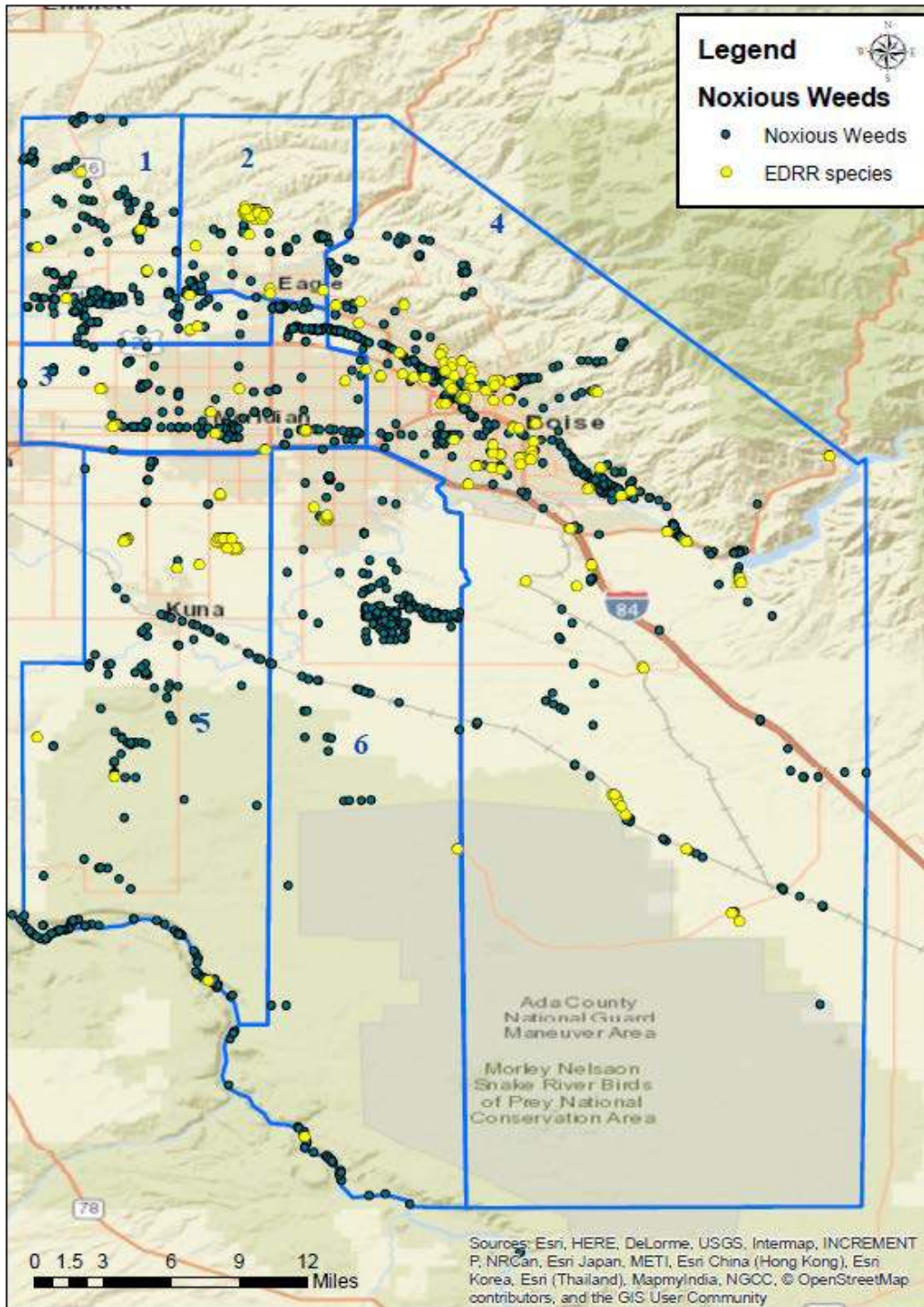


Ada County Weed Control Dept. 975 E Pine Ave, Meridian, Idaho 83642, 208-577-4646
Created by: wpkeendn Date: 1/27/2020



Appendix 1.2

Distribution map of noxious weed points mapped as active sites from 2015-2019



Ada County Weed Control Dept. 975 E Pine Ave, Meridian, Idaho 83642, 208-577-4646

Created by: wpkeendr

Date: 1/27/2020



Appendix 1.3

Photos of new invaders in 2019 and some EDRR reoccurring species in Ada County



The picture above is of Hoary alyssum (*Berteroa incana*), an AC EDRR weed, newly found in Ada County in 2019.



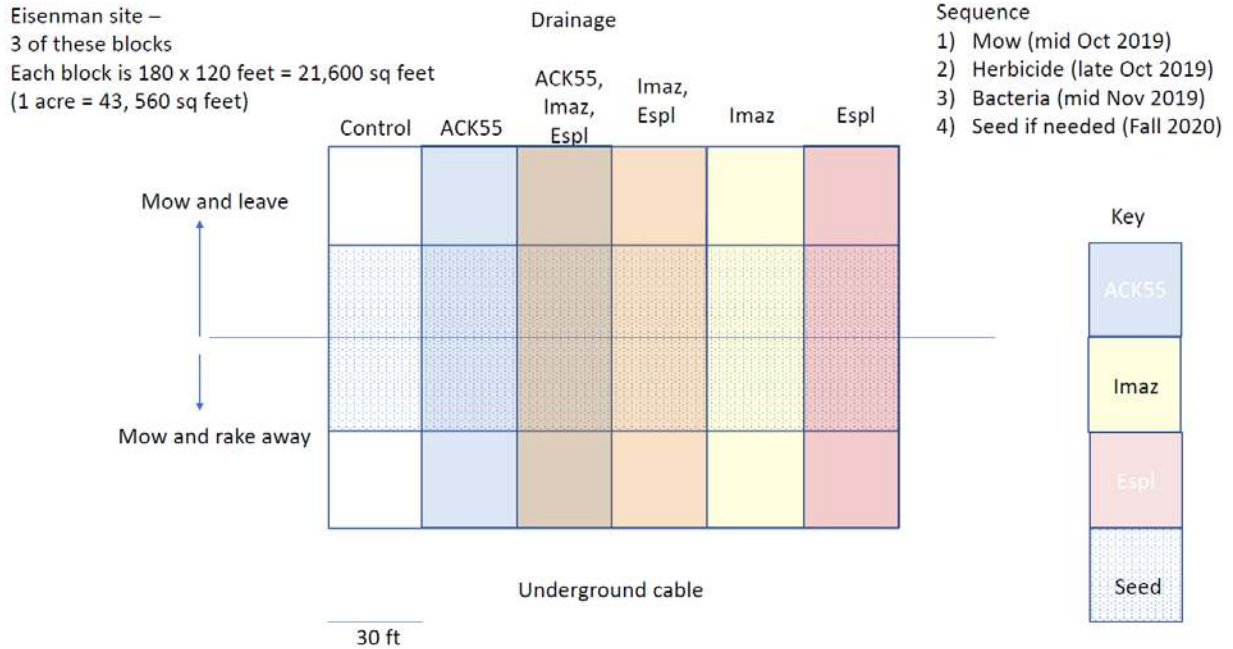
The pictures above are of Perennial sowthistle (*Sonchus arvensis*), this is a new infestation found in a public park in Ada County.



Pictures above are of Yellow starthistle, Black henbane, and Johnsongrass, all EDRR weeds in AC.

Appendix 1.4

Test plots for ITD and USGS layouts.



The above chart shows the breakout of the USGS and ITD test plots completed in 2019 at the Eisenman exit.