



ADA COUNTY PEST ABATEMENT DISTRICT

2020 Annual Report

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12/30/2020

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Mission Statement

The mission of the Ada County Pest Abatement District (ACPAD) is to abate Pocket Gophers and Yellow-bellied marmots that threaten agriculture or infrastructure, while providing value and outstanding service to the taxpayers who reside within the district.

District History

On March 26th, 1962 the Ada County Gopher Program was established. It was a cooperative project among Ada County, the various canal companies, the U.S. Fish and Wildlife Service and property owners of Ada County. On December 19th, 1968 the Pest Abatement District was created inside the Ada County boundaries, which excluded the municipalities of Boise City, Meridian, Kuna, Garden City, and later Eagle and Star.

Pest Control Management and Staff

Adam Schroeder, Director

Desireé Keeney, Deputy Director

Chris Culley, Division Coordinator

Diana Beahm, Administration Specialist II

Additional Staff: Up to 15 seasonal employees; one full-time GIS Analyst (shared with Noxious Weed Control and Mosquito Abatement District); four full-time administration staff (shared with Noxious Weed Control and Mosquito Abatement District).

ACPAD Methods

ACPAD provides pest abatement services to the landowners residing within the district for the charges they pay toward the special taxing district levy. ACPAD also provides for-hire pest abatement services for tax-exempt properties such as federal, state, and local governments, schools, and churches. ACPAD staff will visit a property, determine the best control methods, and work with property owners to abate the pests using integrated pest management (IPM) methods. ACPAD strives to efficiently and effectively control Pocket gophers and yellow-bellied marmots throughout Ada County in landscaping, yards, gardens, vineyards, pastures, fields and crops.

Training and Education

ACPAD implemented a pesticide label comprehension test during the startup of the season to ensure our applicators had read and understood current rodenticide product labels. ACPAD conducts annual training for applicators and field workers on the following:

- ✓ Safety
- ✓ Ada County Policies
- ✓ On-site Training,
- ✓ Seminar Trainings for Pesticide Applicator License Recertification Credits

This season we completed a total of 488.25 hours of training and education.

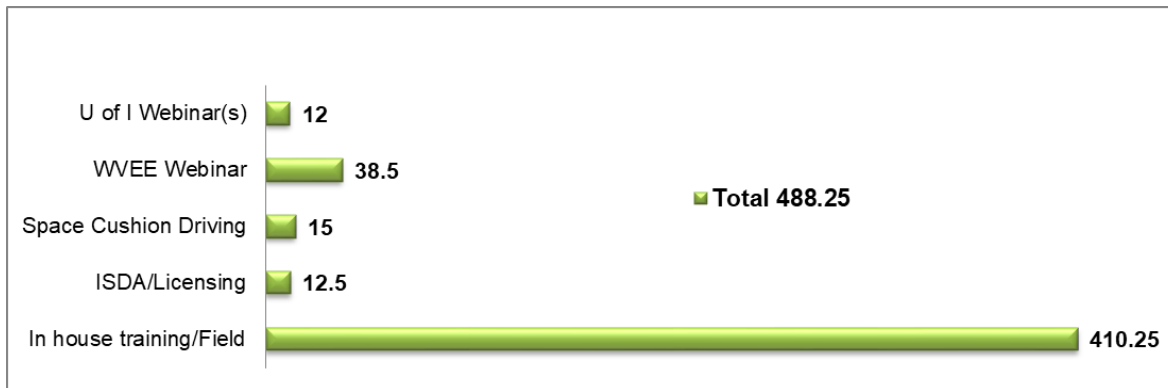


Figure 1: Training hours by seminars attended in 2020 by full-time and seasonal staff.

Pest Abatement 2020 Operations

ACPAD started training in late February and field work began in March. Early in the season, there were 21 inclement-weather days in the spring (too rainy, snowy and/or muddy) and 31 total for the season (n=187 work days). Overall, ACPAD was able to complete field work on 84% of the days in the treatment season (February 24th to November 17th). During inclement weather delays, crews were able to retrieve traps from field locations set the day before and where the environmental conditions allowed. The partial-production days (attributed to working in areas of district allowed based on the variables of weather, soil conditions and geographic zones) were not included in the total number of non-production days.

ACPAD typically assigns field crews to service areas throughout the county (Northeast, Northwest, Southeast, Southwest and Rover) for the treatment of Pocket gophers and Yellow-bellied Marmots. The crews ran from February 24th to November 17th (week numbers 8-46 for a total 39 weeks), completing a total number of 2,376 work orders¹ (a decrease of 7% from last year) and treating significantly less in estimated 7,654 acres² using bait, smoke cartridges and/or traps (n₂₀₁₉=16,919 acres).

The total number of site visits and work completed (invoices) from the total work orders requested was 2,469, a decrease of 38% from 2019. There were an estimated 2,791 (a 30% decrease from 2019) phone calls/web forms resulting in 2,397 work orders created (an avg. 266 work orders/month). Most of the remaining phone calls and web forms were treatment requests for voles or other species or were from non-district residents within the city limits requesting pest control services. In 2020, ACPAD received less new clients than previous years (Fig.2); of the current clients, ACPAD also saw a decrease in client call-ahead requests (Fig.3) than in 2019.

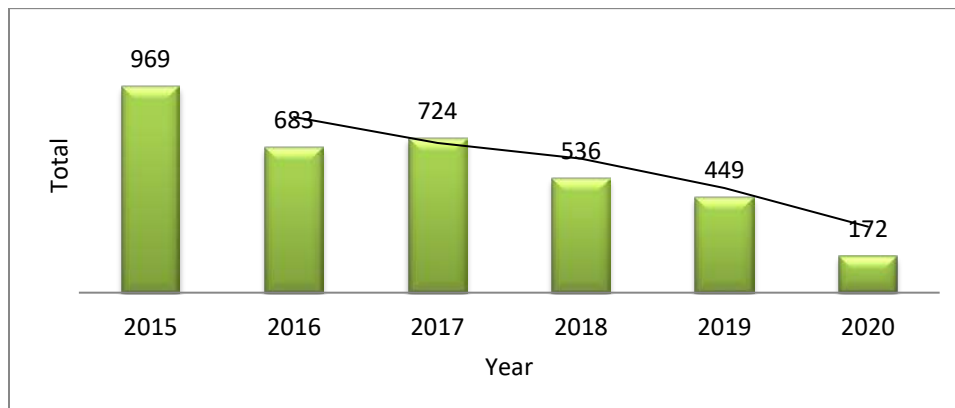


Figure2: The above chart depicts the decline in total new pest clients over the last five years.

¹ A map of all work orders by count can be found in Appendix 1.1

² A map of acres treated can be found in Appendix 1.2

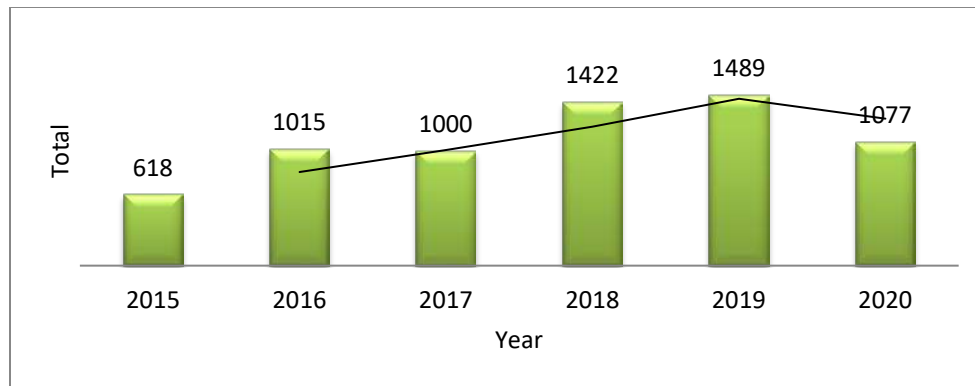


Figure 3: The above chart shows a steady increase for requested call-ahead or notifications before inspection & treatments by year apart from 2020.

Pocket Gophers (*Thomomys species*)

From the publicly-requested work orders completed in 2020, 91% of all work orders were for the control of Pocket gophers. There were 8 billable work orders, with the majority being for Barber Dam (Fig.4). Out of an estimated 7,654 total acres treated, 93.2% of those acres were for Pocket gopher treatments while the remaining treated acres were for rock chucks. Field service crews set a total of 6,588 DK-1 traps and caught 2,027 Pocket gophers, used 975 smoke cartridges and applied 512.47 lbs. of strychnine bait.

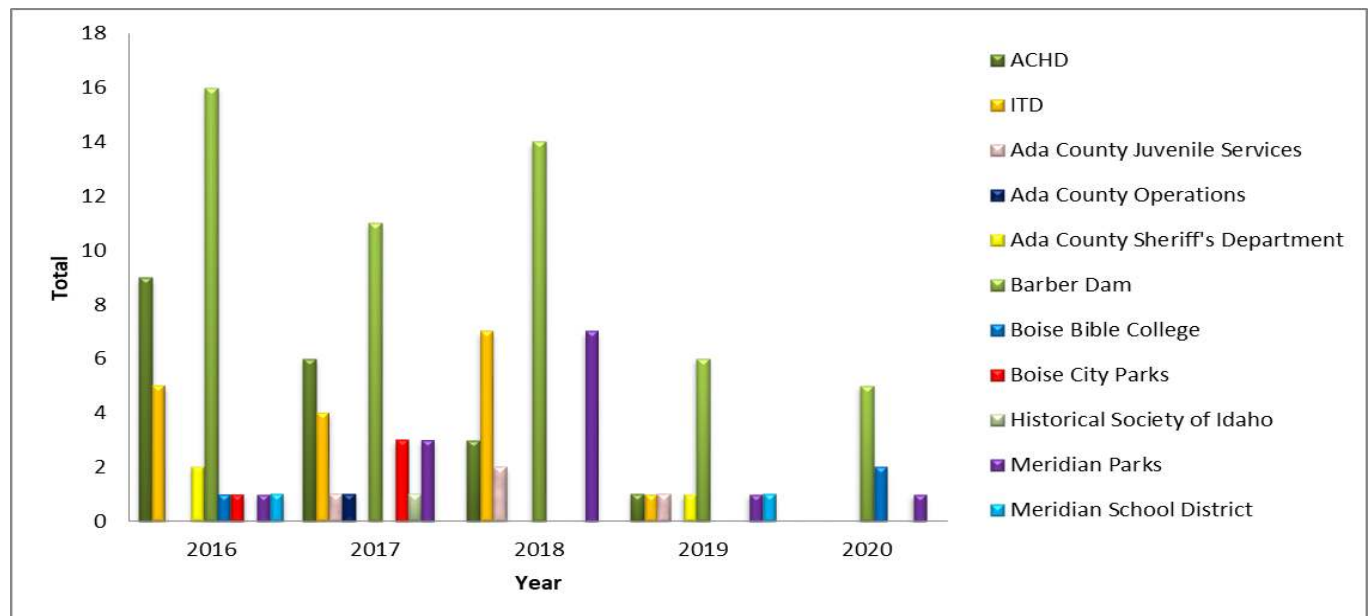


Figure 4: This chart shows total billable work orders completed from 2016 to 2020. In 2016, there were 36 requests from external public agencies, 30 in 2017, 33 in 2018, 12 in 2019 and 8 in 2020.

Yellow-bellied marmots (*Marmota flaviventris*)

The Rover crew inspected and treated 196 properties this season with an estimated 516.8 treated acres for Yellow-bellied marmots, also known as rock chucks. This was more than doubled from 2019 acres treated ($n=219.46$). Work orders were received for 33 weeks, beginning on February 12th and ending on October 9th, with many treatment requests received in April (Fig.5). Infestation levels were recorded in ranges, and the effectiveness of control methods were determined by monitoring populations throughout the season. Figure 6 shows an overall reduction in rock chuck abundance and infestations on individual properties from 2016-2018. However, there was an increase in 2019 and 2020 in mid-to-low infestations recorded that can be attributed from the heavy and mid-infested properties being reduced over time into the lower range categories, i.e. a

property that was once heavily infested are now reduced to mid, or low-infestation levels. Data for infestation levels was not recorded if there was an absence of rock chucks, or if rock chucks were not the target species.

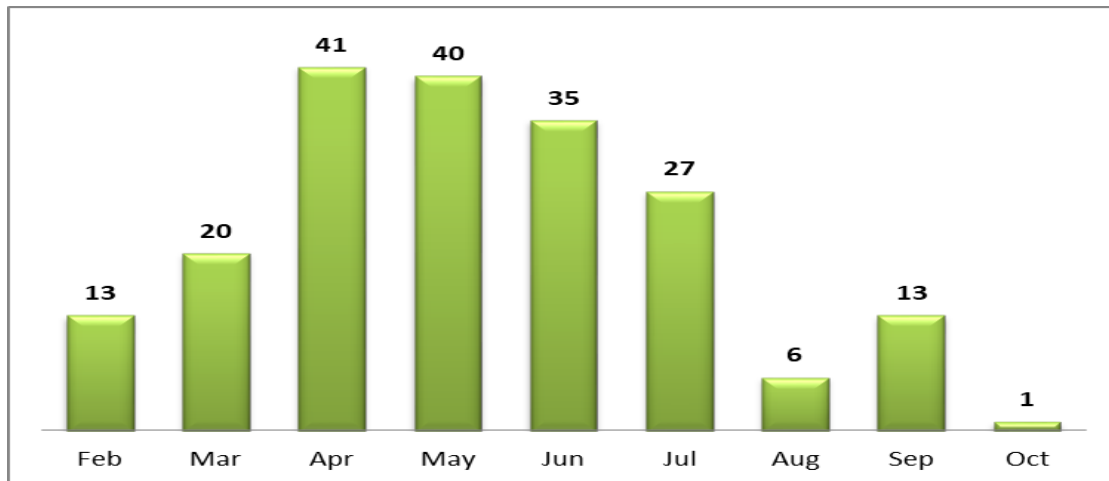


Figure 5: The chart above shows the total number of rock chuck treatment requests by month for 2020.

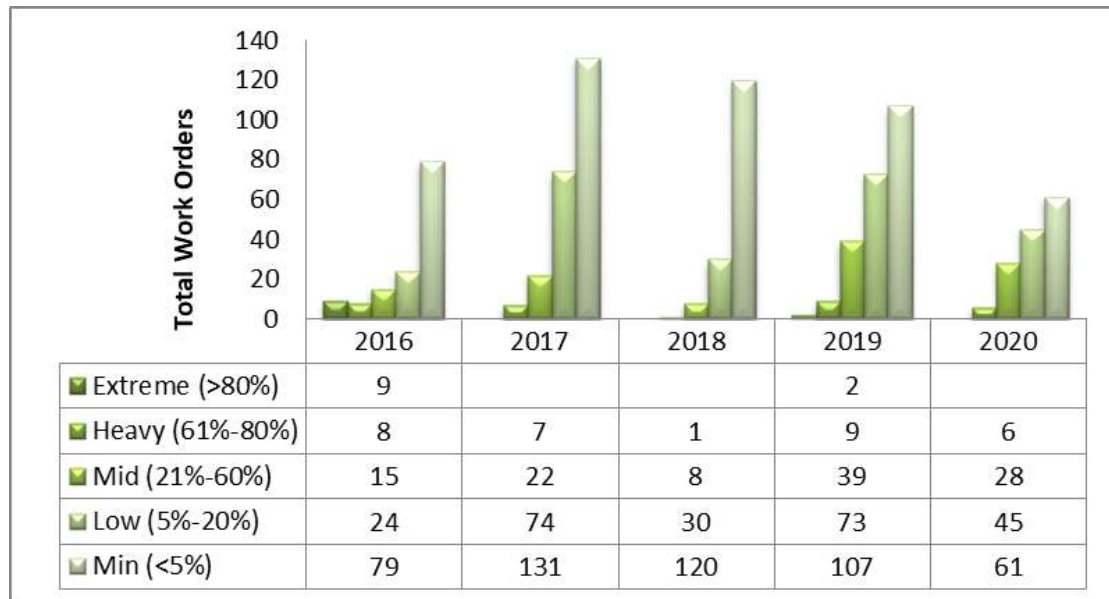


Figure 6: The chart above shows a decrease over time in infested properties as well as shows infestation levels by count of work orders since 2016 in rock chucks.

Projects

ALAMO

This season the pest department started using a new internal software program, Abatement Logistics and Mapping Operations (ALAMO), for all record keeping, mapping, scheduling and field data collection. Training and implementation started immediately in February. ALAMO was spearheaded by our Ada County IT and GIS team using software from ESRI, an ArcGIS and Field Maps developer. This project is still ongoing at the time of the report; and all data in this report are preliminary and dependent on accuracy of ALAMO records.

Fifth crew

ACPAD continued with a fifth crew this year to decrease the backlog caused by increasing call-ahead orders and requests for manual trapping. In 2019 ACPAD achieved a response time of ten days or less in May, whereas for

2020 we didn't meet our goal until the beginning of August due to staffing shortage, COVID-19 pandemic and daily troubleshooting of new software in the field (*Fig. 7, 8 & 9*).

In 2019, five field service crews drove an average of 10,696 miles per crew with five vehicles; while in 2020, five crews drove an average of 8,651 miles plus eight more vehicles used for social distancing as a safety precaution from COVID-19 pandemic. Each of those eight vehicles drove an additional average of 1,099 miles per vehicle.

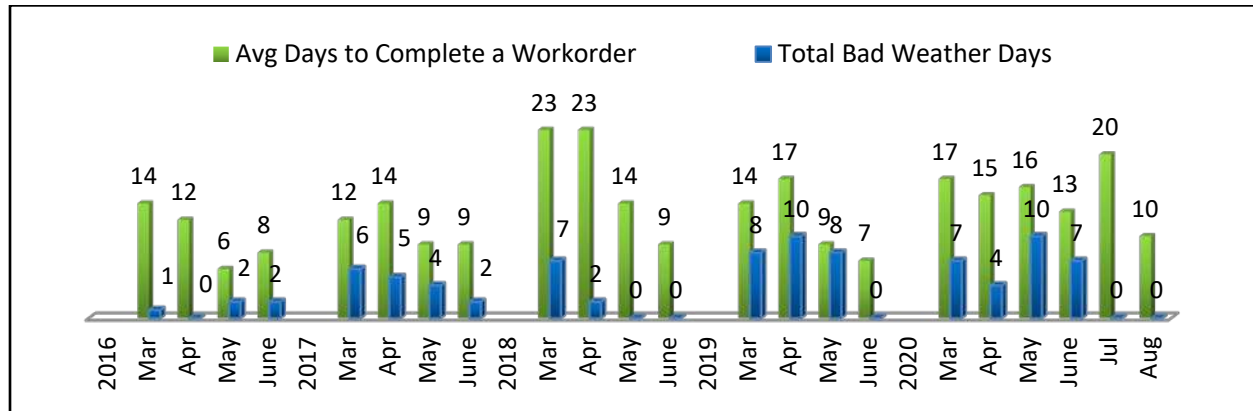


Figure 7: The chart above depicts the average response time in spring from call to completion with lost days due to inclement weather 2016-2020.

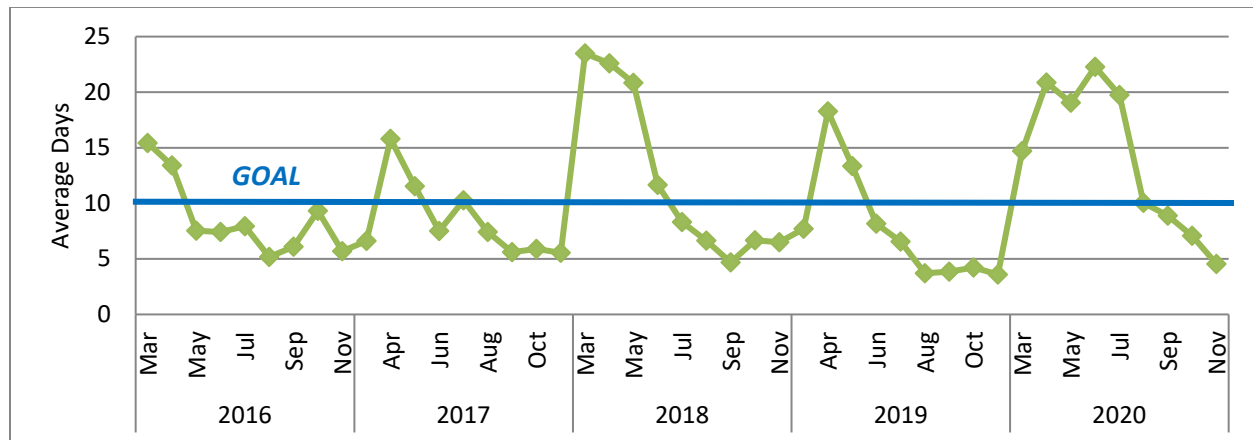


Figure 8: Average response time (from service order request to completion), in days, relative to ACPAD response goal, 2016-2020.

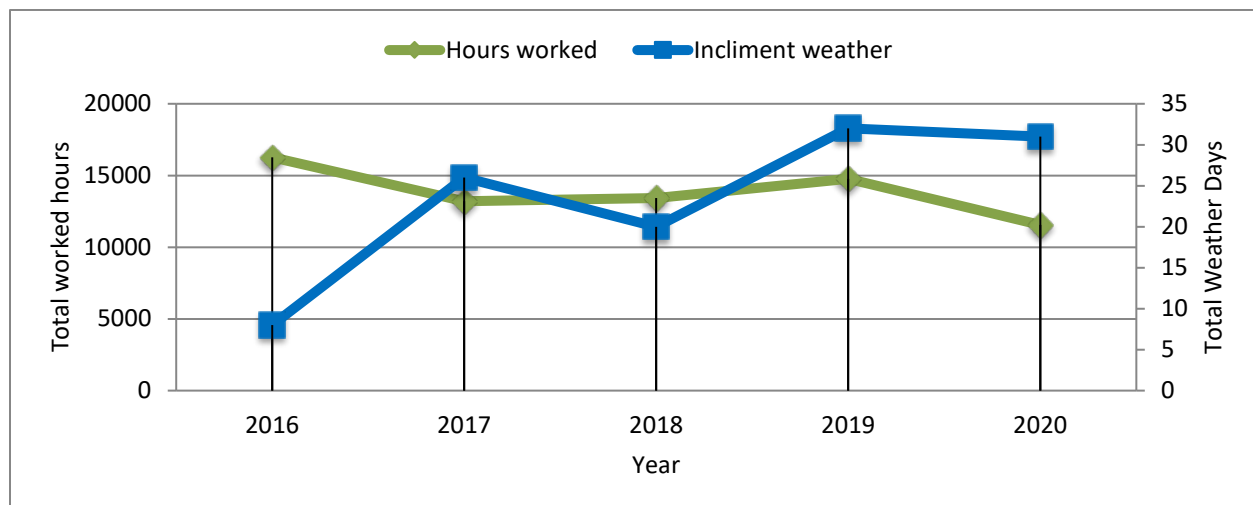


Figure 9: The chart above depicts the total hours worked per year with lost days to inclement weather.

Conclusion

ACPAD began the season with in-house training in late February and started field training and services in March. Due to inclement weather delays, short staffing and a new program, we were not able to reach a response time of 10 days or less until the beginning of August (*Fig. 8*). ACPAD had an overall 31% success catch rate (Pocket gophers trapped), which was a 9% decrease from previous years' catch rates, but within the normal annual range. During the 2020 season, pocket gopher abundance was down overall, with 60% less pocket gophers trapped on pest district properties. Additionally, the infestation rates of the pest species are lowering every year and more properties had less pest species abundance likely attributed with successful continuous control efforts over the last four years. This can also be visualized in our frequency of client call-ins (see map on Appendix 1.1) decreasing from 2019 to 2020 from a high range of 17 to 12 respectively, averaging two workorders per parcel in 2020.

With a decrease in public service requests, informational call-ins and acres treated from 2019, ACPAD was still able to overcome some challenges, including trying to implement a new software program and challenges from the COVID-19 pandemic. Rock chucks acres were treated more this year than in previous years by 57% even though on less properties, this could be due to larger acreage properties inspected and/or a difference in reporting with the new software program, ALAMO.

ALAMO set backs were mostly due to implementation of new field applications and processes; pest crew leads test and try and would have to troubleshoot all in-field software problems and return the feedback daily, which delayed field response time. The COVID-19 pandemic also played a part with setbacks for 2020 due to staffing and training opportunities as well as licensing, some increased costs on fuel use and wear-and-tear on vehicles and increases in the need for safety supplies. From 2019 to 2020, our staffing decreased by 22% due to a shortage of available temp staff and staff staying at home in response to COVID-19 precautions.

We experienced a decline in new clients, which is to be expected due to the annexation of district land into city limits (which effectively removes the land from the pest abatement district). We see continued phone calls from the public on services even though they are out of the district or for voles. Pocket gophers are prolific pests that will often continue to infest on the non-developed or unmaintained land adjacent to or within the district boundaries. Pocket gopher and rock chuck populations are subject to natural variability from predator-prey relationships, fecundity rates, and other environmental factors and will never be completely eradicated.

ACPAD strives to meet taxpayer demand by becoming more efficient, by implementing new control efforts through introduced technologies and science, utilizing IPM, and by educating property owners and stakeholders on best management strategies.

Pest Department Goals

Goals for 2020:

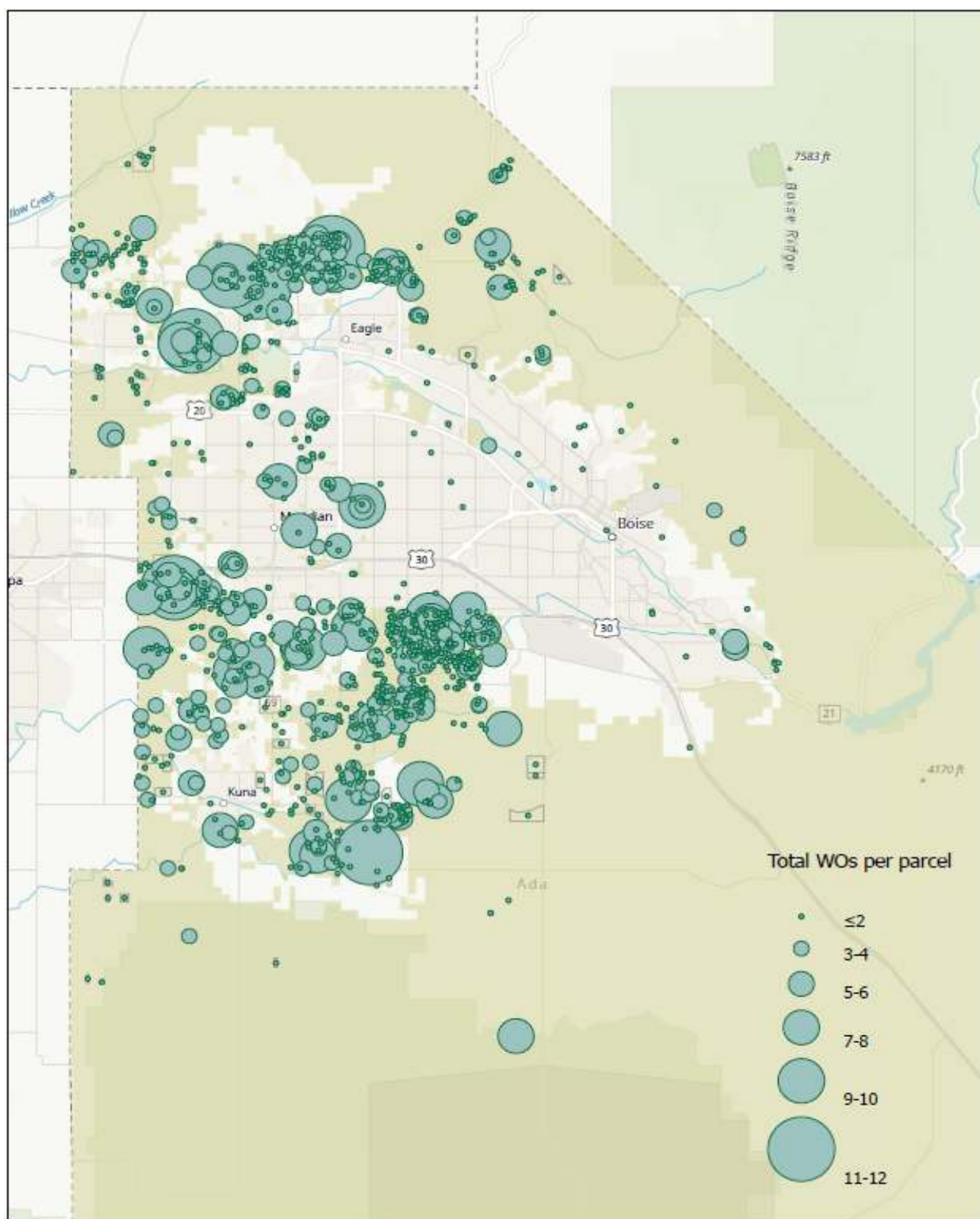
1. Improve response time to public service requests to completion within 5-10 days by May.
 ✓ Goal: In progress - ACPAD continued to implement multiple crews for larger acreages and infestations this season. With the staffing shortage and COVID-19 pandemic, ACPAD reached 10 days or less by August and was an overall 24.7% average increase in response time.
2. Implement new software program (ALAMO) for the field service data recording and make recommendations as needed to continue to improve work flow efficiencies.
 ✓ Goal: In progress- ACPAD starting using ALAMO in the beginning of our season. Since the software is new and not yet completed, ACPAD will continue to work with IT into 2021.

3. Start researching and testing a form of biological control and IPM for Pocket gophers, an example may be by implementing owl boxes and options for services to residents.
 - ✓ Goal: In-progress- ACPAD has started a raptor project utilizing barn owls for control of Pocket gophers. There will potentially be three stages and ACPAD is currently working on phase one.
4. Complete more public education by assisting the education specialist and assisting in educating land owners about these pests and options for control.
 - ✓ Goal: In-progress- ACPAD made “How-to videos” for setting traps and applying bait with products which can be purchased and/or obtained locally.

Goals for 2021:

1. Improve response time to public service requests to completion within 10 days (from call to close of work order) by May 4th, 2021.
2. Continue using the new software program (ALAMO) for the field service data recording and make recommendations as needed to continue to improve work flow efficiencies.
3. Install one owl box, and provide options for future biological control services to residents or as public education tool.
4. Complete and document 25% more public education contacts about pests and options for control.

Appendix 1.1



Appendix 1.2

