

Placitas Free Roaming Horse Herd Management Plan

Working Draft 1



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Executive Summary & Vision

Humane, legal, and sustainable solutions for the free roaming horses of Placitas, New Mexico, have been sought by an array of community members, private organizations, Sandoval County officials, and representatives from state and federal agencies. This working draft of a herd management plan for the Placitas herd builds on these prior efforts to find a path forward for implementing solutions while balancing diverse community interests.

The strategic goals of the initial plan are to:

Goal 1 – reduce reproduction using the immunocontraceptive PZP and support herd health by treating mares and fillies annually with PZP;

Goal 2 – improve herd and community health and safety while achieving the highest possible quality of life for the horses;

Goal 3 – implement humane, science-based management for the Placitas herd throughout the life of the herd.

Herd management for wild and free roaming horses continues to evolve from a primary reliance on round up and removal. This evolution, along with commitment of many and the resources that they bring to crafting solutions for the Placitas herd, provides a unique opportunity for developing the humane, legal, and sustainable solutions sought by Sandoval County representatives and others at this time. As a working draft, this management plan is meant to evolve over time with the changing needs, conditions and opportunities affecting the herd, the community, and the environment. The vision of this herd management plan is to achieve healthy horses and healthy range for the Placitas herd in balance with diverse community interests.

Introduction & Background

Sandoval County officials, staff, Placitas community members, and representatives of diverse entities have been working for humane, legal, and sustainable solutions for the free roaming horses of Placitas, New Mexico. These efforts have included using surveys and meetings to gain feedback on community members' perspectives and preferences, developing the 2014 New Mexico First Report on potential actions, and creation of the Sandoval County Free Roaming Wild Horses Advisory Council in 2018 (<https://www.sandovalcountynm.gov/placitas-horses/>). Developing a humane, science-based management plan for the Placitas herd builds on the efforts of many who are committed to finding humane, legal, and sustainable solutions for the horses, the community of Placitas, and the surrounding environment.

This herd management plan is intended to provide a framework for addressing current and future needs for managing the free roaming horses of Placitas with goals and strategies that are within the parameters of humane, legal, and sustainable, as set forth by Sandoval County. This initial working draft is designed to serve as a living document that evolves over time with the changing conditions of the horses, the environment, and the community. The plan is intended to: improve the health and safety of the herd; improve the safety of community members; decrease pressure on the range; and to provide options for balancing, to the extent possible, diverse community member interests and perspectives. It draws on the best available science on fertility control to inform ideas and strategies. Currently, complex legal questions remain as to which entities have authority and responsibility for the Placitas herd. Clarification of at least some of these questions and state legislation may be required to define the legal status of the horses in order to implement aspects of the herd management plan going forward.

The Placitas community has a unique opportunity to implement herd management planning and strategies that are pro-active, humane, science-based, and sustainable over time. Placitas has a rich history with residents who have resided in the area for generations and who possess traditional knowledge of the land, water, and the community. Placitas is home to many residents whose diverse array of skills, willingness to invest time, and support for funding for the horses and the range provide important opportunities and resources for moving forward in positive directions for the herd, the community, and the environment.

Placitas is an unincorporated 30 square mile suburban/rural community of approximately 7000 residents, located in Sandoval County, New Mexico. The community is bordered by the Pueblos of Santa Ana and San Felipe, and includes public lands managed by the Bureau of Land Management (BLM), and the U.S. Forest Service (USFS), as well as county open space (<http://www.sandovalcountynm.gov/wp-content/uploads/2019/11/FINAL-CY19-Activities-Report.pdf>). For many decades and possibly longer, a herd of horses has roamed the community on public lands, private homeowner properties, and on the roads. As development and the population within the community have increased and herd numbers have grown, the health and safety of the horses and the community is increasingly at risk and environmental degradation is accelerating. Horses have been struck and killed by motorists on the roads. Lack of forage and water in the high desert ecosystem of Placitas has stressed horses, and some community members are now feeding horses daily.

In 2014, Sandoval County convened a task force to identify proposed solutions for the Placitas herd, resulting in a report by the public policy organization New Mexico First. Community members voiced varied perspectives

about the free roaming horses, from wanting the horses removed to proposing that all horses remain, and efforts to move forward on proposed actions stalled. Sandoval County renewed efforts to develop solutions in 2018 with a survey of Placitas residents and the development of the Free Roaming Horses Advisory Council. Also in 2018, the County contracted with MT. Taylor Mustangs, LLC, to begin treating mares with the immunocontraceptive Porcine Zona Pellucida (PZP), to survey the herd, and to develop a working draft of a herd management plan. The project is overseen by officials and staff of Sandoval County with multi-jurisdictional collaboration from community members, and representatives of the New Mexico Livestock Board, the BLM, Animal Protection of New Mexico, and the Sandoval County Sheriff's Department, all of whom serve on the Free Roaming Horse Advisory Council (New Mexico First, 2014; <https://www.sandovalcountynm.gov/placitas-horses/>).

Herd management science and strategies for wild and free roaming horses are evolving. Round up and removal, during which horses are often pressured or chased, corralled, and then transported off the range, has been the primary method for managing herd numbers. Today, bait-trap strategies offer a low-stress means for gathering horses by family band while reducing the likelihood of injuries. On-range management using fertility control provides a means for managing herds by reducing reproduction, and is less intrusive for herds that can be treated without gathering horses for treatment. A recent National Academy of Sciences study found that using round up and removal to manage wild horse herds was facilitating high rates of population growth, resulting in the subsequent need to remove more horses (National Academy of Sciences, 2013).

During 2019, the horses of the Placitas herd were observed to be in fair to excellent body condition. The distribution and behavior of the horses, and likely the foaling season, are being shaped by forage and water availability and community members' behavior. Some community members report that they are feeding the horses daily, and are feeding calorie-rich alfalfa hay. Consultation with Drs. Allen Rutberg and John Turner, experts on wild and free roaming horses, confirmed that an extended breeding season and increased reproduction rates may be occurring due to the year-long availability of rich feed (A. Rutberg & J. Turner, personal communication, April 2, 2019, Tufts University & the University of Toledo, respectively). These factors are considerations for management for the Placitas herd now and going forward.

Employing a combination of humane, science-based strategies for managing the Placitas herd will produce the timeliest results toward achieving healthy horses and healthy range. These strategies may include on-going fertility control treatment, developing refuges, adoption, and creating an organized feeding and watering effort. Utilizing interested community members' skills and resources along with developing broad community support for management has the potential to further and sustain a high quality of life for the horses of the Placitas herd.

Equine Fertility Control

Newer and established fertility control agents that have been tested with equines include the GnRH vaccine, known as GonaCon-Equine, SpayVac, and Porcine Zona Pellucida (PZP). To date, the one published study on treatment of free-roaming horses with GonaCon-Equine found significant reductions in reproduction for three consecutive years in mares treated with a second dose. GonaCon-Equine was found to be safe for pregnant mares and their foals. A majority of the treated mares in this study showed tissue reactions at the injection site (Baker, Powers, Ransom, McCann, Oehler, Bruemmer, Galloway, Eckery, & Nett, 2018). More research is needed to demonstrate the efficacy of GonaCon-Equine, to evaluate its reversibility, and to assess the long-term health effects of multiple treatments over time.

SpayVac has not been tested with free roaming horses to date. Research on SpayVac conducted with captive horses found that fertility rates for mares treated with one inoculation were 13.3%, 46.7%, and 43.3%, respectively, during the three years' post-treatment (Roelle, Germaine, Kane & Cade, 2017, p.107). Additional research is needed with free roaming horses to explore efficacy and the health effects of multiple treatments over time.

Decades of research and field application with wild and free roaming horses has demonstrated that Porcine Zona Pellucida, or PZP, significantly reduces reproduction in treated mares, is safe for pregnant mares and their foals, and is reversible. PZP does not pass through the food chain, meaning that it is safe for the environment and other animals. PZP is a vaccine against conception that stays out of the reproductive stream. This makes it unique among fertility control agents and contributes to the safety of PZP for long-term use for horses and other mammals. ZonaStat-H, or the one year dose of PZP, is given annually to mares after a primer and booster dose are given in the first year of treatment. It has been found to be 90-95% effective. PZP-22 is a one-shot inoculation that produces two years of reduced reproduction in treated mares with one treatment (Kirkpatrick, Lyda, & Frank, 20011; Turner, Liu, Flanagan, Rutberg, & Kirkpatrick, 2005).

Since 1994, population-level reductions in reproduction have been achieved via management with PZP, first with wild horses on Assateague Island. Research demonstrates that the longevity of mares receiving annual PZP treatment increases as they are relieved of the stress of carrying and nursing foals every year. Consistent application of PZP reduces reproduction for individual mares and, over time, allows herd numbers to decline naturally (Kirkpatrick & Turner, 2007; Turner & Kirkpatrick, 2002). Treating mares and fillies in the Placitas herd with PZP is a safe, minimally-intrusive method that is a key strategy on the path forward for humane, science-based and sustainable management for the herd. Fertility control combined with other management strategies has the potential to improve the safety and health of the horses and the community while addressing the interests of community members, representatives of the County, and other interested parties.

Placitas Herd Management Plan Vision & Goals

The management plan for the Placitas herd is designed to achieve the vision of healthy horses and healthy range in balance with diverse community interests. The plan is intended to: contribute to a humane, science-based path forward for managing the herd that is effective and can be sustained over time; stabilize herd numbers; and to increase public support for management. The plan is a working draft, meaning that it is intended to evolve with the herd and the community to capture future opportunities and to respond to emerging changes and needs. Potential areas for future goals include range restoration, community education initiatives, and engaging youth.

Goal 1 – Reduce reproduction using the immunocontraceptive PZP and support herd health by treating mares and fillies annually with PZP.

Objectives

- Treat a minimum of 90% of mares and fillies age one year and older with PZP annually.
- Monitor the herd for out-of-season births and treat mares that foal off-season with PZP after foaling when possible.
- Assess annual foaling rates and other changes in the herd and optimize PZP treatment accordingly.

Strategies

- Maintain and expand, as needed, PZP treatment for mares and fillies of the herd.
- Maintain and update the population survey based on changes in the herd.

Goal 2 – Improve herd and community health and safety while achieving the highest possible quality of life for the horses.

Objectives

- Explore developing a community-based refuge for non-reproducing family bands with: perimeter fencing; necessary infrastructure to ensure availability of water, feed, and/or forage; and adequate acreage for health and room to roam.
- Explore designating a community herd of horses with a target minimum and maximum number that would be left to roam the community in areas away from main roads and, to the extent possible, away from homeowners who do not want horses on their properties.
- Explore relocating family bands to permanent, free-roaming refuge outside of the community.
- Explore developing an adoption program to enable qualified adopters who demonstrate capacity to provide life-long care to adopt a horse or horses.

- Explore developing a virtual adoption program through which community members may provide annual financial sponsorship for a horse or horses in a community refuge, a community herd, and/or a refuge outside the community.
- Explore developing designated feeding and watering zones away from roads and, to the extent possible, away from homeowners who do not want horses on their properties.

Strategies

- Corral horses by family band using the low-stress method of bait-trapping for relocation to a community refuge and/or or refuge outside the community, based on the availability of land and funds.
- Engage community members who have previously adopted horses from within the herd in developing adoption criteria, education for potential adopters, and application processes.
- Engage community members who may be interested in supporting the horses in developing a virtual adoption program.
- Engage community members who are feeding and watering horses and those who don't want horses on their properties to identify safe potential feed/water locations.
- Develop community feeding and watering guidelines and the community education practices needed for such an effort.

Goal 3 – Implement humane, science-based management for the Placitas herd throughout the life of the herd.

Objectives

- Engage in on-going herd management planning and actions to address emerging changes, challenges, and opportunities.
- Evaluate management planning outcomes a minimum of annually and update the plan as needed.
- Develop broad support for herd management planning and implementation to ensure commitment that transcends administrative and staffing changes.

Strategies

- Maintain continuity in management activities and expand activities as needed.
- Secure legal, policy, and financial commitment at the local, county, and state level as needed.

References

- Baker, Powers, Ransom, McCann, Oehler, Bruemmer, Galloway, Eckery, & Nett. (2018). Reimmunization Contraceptive Effectiveness of Gonadotropin Hormone-Releasing Vaccine (GonaCon-Equine) in Free-Ranging Horses (*Equus Caballus*): Limitations and Side Effects. *PloS ONE* 13(7): e0201570. <https://doi.org/10.1371/journal.pone.0201570>
- Kirkpatrick & Turner. (2007). Immunocontraception & Increased Longevity in Equids. *Zoo Biology*, 26, 237-244.
- Kirkpatrick, Lyda, & Frank. (2011). Contraceptive Vaccine for Wildlife: A Review. *American Journal of Reproductive Immunology*, 66, 40-50.
- National Academy of Sciences. (2013). Using Science to Improve the BLM Wild Horse and Burro Program: A Way Forward. *National Academies Press*, Washington, DC, 800, 624 – 6242.
- New Mexico First. (2014). Task Force on Free-Roaming Horses of Placitas: Final Report. *New Mexico First*, Albuquerque, NM.
- Roelle, Germaine, Kane & Cade. (2017). Efficacy of SpayVac as a Contraceptive in Feral Horses. *Wildlife Society Bulletin*, 41(1), 107-115.
- Sandoval County. (2018). <https://www.sandovalcountynm.gov/placitas-horses/>
- Sandoval County. (2019). CY 19 Activities Report <http://www.sandovalcountynm.gov/wp-content/uploads/2019/11/FINAL-CY19-Activities-Report.pdf>
- Turner & Kirkpatrick. (2002). Effects of Immunocontraception on Population, Longevity, & Body Condition in Wild Mares (*Equus Caballus*). *Reproduction*, (Supplement 60), 187-195.
- Turner, Liu, Flanagan, Rutberg, & Kirkpatrick. (2005). Immunocontraception in Wild Horses: One Inoculation Provides Two Years of Infertility. *The Journal of Wildlife Management*, 71(2), 662 – 667.