JEFFERSON
COUNTY COLORADO
Parks & Open Space

4 November 2026

2027 Small Research Grants Program

Jefferson County Parks & Open Space (JCPOS) is pleased to offer the Small Research Grant Program to support individuals or groups to conduct applied studies on JCPOS lands in 2027. The goal of this program is to fund research that will inform management of natural, cultural, and recreational resources on JCPOS park lands.

Anyone may apply; motivated undergraduate students and graduate students are particularly encouraged to submit proposals. Awards are typically in the $10,000 to $15,000 range, although smaller awards will be considered. All research must be completed within the 2027 calendar year unless multi-year work is approved by JCPOS. In general, multi-year projects may receive funding for up to two years. Larger awards will be considered on a case-by-case basis for projects with a bigger scope and/or exceeding two years but must be discussed with JCPOS staff before proposals are submitted. Researchers may propose interagency projects to JCPOS, Boulder County Parks & Open Space (BCPOS), City of Boulder Open Space & Mountain Parks (OSMP), City of Longmont Parks, Recreation & Open Space, or other Front Range open space agencies. All projects or portions of multi-agency projects funded by JCPOS must be conducted on JCPOS property.

Preference will be given to applications that address topics identified in this solicitation (below). Applicants may, however, propose an alternative topic and all proposals will be considered and evaluated on their merits.

Applicants are strongly encouraged to discuss the eligibility of their project with JCPOS staff prior to submitting a proposal, particularly if proposing an alternative

topic. Please contact OSgrants@jeffco.us and you will be connected to the appropriate JCPOS staff person with whom to discuss your project.

Proposals are due by 5:30 p.m., Friday, January 8, 2027. Final reports must be submitted using JCPOS report formatting by 5:30 p.m., Monday, December 27, 2027.

Following are application details for the 2027 JCPOS Small Research Grants Program including important dates, proposal requirements, and a list of priority research topics.

We look forward to receiving your proposals.

Sincerely,

Jefferson County Parks & Open Space

2027 SMALL RESEARCH GRANTS PROGRAM

Jefferson County Parks & Open Space (JCPOS) seeks to fund scientific investigations and applied studies that will inform the management of JCPOS lands. The goal of this program is to fund research that will inform management of natural, cultural, and recreational resources on JCPOS park lands. Anyone may apply; motivated undergraduate students and graduate students are particularly encouraged to submit proposals.

Dates and Deadlines

Important deadlines for the 2027 Small Research Grant Program are listed below.

Date	**Component/Task**
November 4, 2026	Call for proposals for 2027 cycle announced
January 8, 2027	Proposals due
February 22, 2027	Award announcements
August 16, 2027	Mid-project check-in with assigned JCPOS staff advisor
October 27, 2027	Final report drafts due
November 24, 2027	Review comments returned to researcher
December 27, 2027	Final report due

Guidelines and Instructions

Researcher Eligibility

- Anyone may submit a proposal. Note that JCPOS employees are not eligible for grants directly related to their primary job duties.
- You must designate a Principal Investigator (PI); if the PI will not be personally conducting the research (i.e., the PI primarily operates in an advisory capacity), you must also designate a primary researcher for the project.
- Notes on student-led projects:
    - The student must be listed as either the primary researcher or the principal investigator.
    - Student-led projects require a signed statement from a faculty advisor (who may or may not be listed as the PI), on institution letterhead, validating the nature of the proposal and describing the degree of faculty involvement and supervision.
    - Faculty advisors are responsible for reviewing reports before submission to JCPOS to ensure that report quality is satisfactory.

    - Faculty advisors are responsible for final report submission to JCPOS should the student fail to do so.
    - Future requests by students of a faculty advisor who has not provided required reports may not be considered for funding.

Project Topics

- Preference will be given to proposals that address priority topics identified by JCPOS staff in this solicitation. Applicants may, however, propose an alternative topic and all proposals will be considered and evaluated on their merits.
- The best proposals come from those who discuss project ideas—whether identified as priority topics or alternative topics—with JCPOS staff before proposal development and submission. Although there is not a set deadline to discuss project eligibility with JCPOS staff, please be cognizant that staff availability may be limited between December 21, 2026 and January 4, 2027. Please contact OSgrants@jeffco.us and you will be connected to the appropriate JCPOS staff person with whom to discuss your project.

Notes on Budget and Fund Disbursement

- Awards typically range from $10,000 to $15,000, although smaller awards may be considered.
- JCPOS reserves the right to award partial funding or request budget modifications.
- Overhead expenses cannot exceed 10%.
- Awards are reimbursement funds.
    - Payment of grant funds prior to project completion will be determined on a case by-case basis. If approved by JCPOS staff, invoices can be submitted throughout the duration of the project when project milestones are completed to JCPOS staff satisfaction.
    - Final payment and project closeout will not be made until deliverables—including the final report—are received, reviewed, and accepted by JCPOS.
- No-fund proposal requests will be accepted throughout the year with a four- to six-week review period. This includes class projects. Review time may be shorter for projects with a simple scope. If you wish to submit a no-fund proposal request, please first contact osgrants@jeffco.us and you will be connected to the appropriate JCPOS staff person with whom to discuss your project and the submission process.
- See Proposal Guidelines in this document for detailed information on what can and cannot be included in a budget request.

Multi-Year Projects

- Multi-year projects are allowed and encouraged, especially for projects in which year-to-year variation may influence results.
- Continuation of funding for multi-year projects beyond the first year is not guaranteed; it is contingent upon satisfactory progress and submission of an interim report following the guidelines and timeline for single-year projects. JCPOS staff will be responsible for determining whether progress is satisfactory and communicating this to researchers.
- Generally, multi-year projects may receive funding for two years. Projects lasting more than two years will be considered on a case-by-case basis and must be discussed with staff prior to proposal submission.
- Total award amounts for multi-year projects can exceed $15,000.
- Multi-year projects are required to submit an interim year-end report.
- For multi-year project proposals, applicants must submit a comprehensive budget covering the full duration of the project, as well as a year-by-year financial breakdown detailing the budget request for each year.

Interagency Projects

- Researchers may propose interagency projects involving Boulder County Parks & Open Space (BCPOS), City of Boulder Open Space & Mountain Parks (OSMP), City of Longmont Parks, Recreation & Open Space, or other Front Range open space agencies. Project coordination will be the responsibility of the researchers.
- Interagency projects proposed are not guaranteed to be funded by all agencies. Projects should be structured so that they will still be viable if only a subset of agencies award funding.
- Funding requested from each agency should be commensurate with the direct benefit received by that agency. This could be based on the distribution of research sites, level of effort, or other metrics indicating relative distribution of work.

Additional Notes and Disclaimers

- Researchers are responsible for knowing and adhering to all applicable policies and regulations set forth by JCPOS.
- All research conducted on JCPOS property requires a Research & Collections permit, available here: JCPOS RC permit. Permits must be **obtained** at least 10 days prior to beginning research. Please allow up to 2 weeks for permit processing. The Research & Collections permit fee will be waived for award winners.
- Collection of cultural or paleontological resources is strictly prohibited.

- Collection of specimens and placement of objects or markers are strictly regulated by JCPOS and other entities (e.g., CPW). Researchers are responsible for contacting the appropriate agency for specific regulations regarding these activities and are required to obtain all necessary permits from other entities before initiating their project.
    - All specimens collected on JCPOS-managed land must be documented. Documentation must be submitted to designated JCPOS staff advisor and ps@jeffco.us within six months of collection or date agreed upon with your JCPOS staff advisor.
    - The proposal should include plans for any specimens that may be collected. We strongly encourage depositing specimens in a formal repository, such as a museum collection.

Proposal Requirements and Submission

- Proposals must follow the guidelines outlined below.
- Proposals must be submitted as **both** a single PDF document and a Word document via the survey form here: https://arcg.is/1ujynb1.
- Interagency proposals must also be submitted as both a single PDF document and as a Word document using the survey form here: https://arcg.is/Sn9b12. **Note that this is a different form than what is used for JCPOS-only proposals.**
- If your proposal is found to be missing information, you will have 24 hours to correct it after being notified.
- Late submissions will not be accepted.

Award Winners

- Successful proposals will be assigned to a JCPOS staff advisor to act as their main point of contact for the duration of the project.
- **You will not be able to begin your project immediately after award notification**; Purchase Order processing may take 2-3 months. You must wait until the Purchase Order has been created and you have been issued a Notice to Proceed from JCPOS. Please keep this in mind when developing your project timeline. Notices to Proceed will be issued between March and May 2027.
- Award winners will need to submit a W-9 to JCPOS to begin Purchase Order processing; having this immediately available will speed the process. Contact your accounting or finance department for this document. Individuals not affiliated with an organization will also be required to submit a W-9, which can be completed with a Social Security Number or other Taxpayer Identification Number.

- Successful applicants must provide proof of insurance per the terms of the grant agreement. Coverage requirements vary depending on your organization type. Please contact JCPOS staff if you have any questions about the insurance requirements.

Project Milestones, Reports, and Information Sharing

- Researchers are expected to maintain communication with their JCPOS staff advisor through a formal mid-project check-in (mid-August) and informally throughout the duration of their project.
- Researchers are expected to communicate any changes to their study design or project goals with their JCPOS staff advisor immediately. These changes must also be clearly documented and justified in the final report.
- Researchers are required to submit a final report detailing project background (including relevant scientific literature), methods, results, and conclusions.
- A draft final report must be submitted for JCPOS staff advisor review. Draft final reports are expected to be complete (including all data analysis), clean, and include all required sections. Draft reports needing more than minor revisions will be returned for corrections before a review is completed.
- Researcher names, affiliations, and research topic may be posted on the JCPOS website. Final reports may also be posted publicly at the discretion of JCPOS.
- If research supported by the Small Research Grants Program culminates in a scientific publication, JCPOS must be acknowledged as a funding source and given the opportunity to review the manuscript prior to submission for publication.
- Researchers may not make reports public without first obtaining JCPOS permission in order to protect sensitive resource information (e.g., rare plant locations).
- Researchers may be asked to present their findings to JCPOS staff and/or in a public forum (e.g., the Front Range Open Space Research Symposium).

Proposal Guidelines

Proposal Format

- 8-page maximum, *excluding* cover page, abstract, literature cited, budget, and researcher/personnel names and qualifications.
- 12-point font, double-spaced, and 1-inch page margins all around.
- Figures and tables must be embedded in the text.
- All proposal content must be combined into a single Adobe PDF document, with the exception of faculty support statement (if applicable). Please use the file naming format: PI last name_abbreviated project name, using underscores in place of spaces (i.e., "Smith_example_project.pdf").

Proposal Content

- Cover Sheet
    - Project title
    - "Small Research Grant Program 2027 Proposal"
    - Using correct, full names, identify and include contact information (email and phone) and institution/organization affiliation (if applicable) for:
        - principal investigator (PI); and
        - primary researcher, if applicable (see "Researcher and Researcher Qualifications" section for details).
    - Primary institution/organization information, including:
        - Name. Please note if your institution/organization does business under another name.
        - Institution contract office contact, if applicable (individual name, email and phone).
        - The name(s) and title(s) of the person(s) signing for the entity.
            - This must be someone with signature authority per your organization's regulations.
            - If your project is awarded, the Jefferson County Attorney's office may require documentation showing that this person has the authority to sign the grant agreement on behalf of their organization (e.g. articles of incorporation, bylaws, or board resolution).

        - Note: Applicants from academic institutions must coordinate proposal submission with their institution's sponsored research department (or equivalent) and provide written verification from said department stating that this requirement has been met prior to the submission deadline.
    - Date of proposal submission
- Abstract
    - Provide a brief, one-paragraph proposal summary that describes research background, purpose and/or objectives, general methods, and anticipated value of the research to JCPOS.
- Introduction
    - Describe the problem to be addressed.
    - Summarize the relevant existing literature. How does the proposed research add to the existing body of knowledge and complement existing work? What is the significance of this research? In-text references should be used for citations; see the Wiley Journals Style Manual, section 3.2.1 for the style for in-text references to citations.
    - State the research study objective, research questions, hypotheses, and alternative hypotheses.
    - Describe the anticipated value of the proposal for JCPOS management as well as scientific knowledge and for educating the public.
- Methods
    - Detailed data collection methods, citing relevant literature.
    - Anticipated data analysis techniques (including modeling).
    - Project logistics, including:
        - detailed project schedule;
        - whether driving on JCPOS property is required and if you can meet Jefferson County's auto insurance requirements;
        - any required permits (including JCPOS Research & Collections permits); and
        - anticipated levels of coordination with JCPOS staff.
    - Map of research activity's location.
        - A JCPOS system map of park locations is available at https://www.jeffco.us/947/JCPOS-System-Map or https://jeffcoparks.maps.arcgis.com/apps/dashboards/86f36640445f4d9c8225cdbfaacc0d6b (interactive map).

        - GIS data for JCPOS properties can be found at the Jefferson County GIS data hub at: https://data-jeffersoncounty.opendata.arcgis.com/
    - Explanation of any potential negative impacts to JCPOS resources.
    - Proportion of work expected to be conducted in the field, in the lab, and by computer (e.g. modeling; please describe).
- Deliverables
    - Provide a description of any deliverables (e.g., data, models) that will be provided in addition to the final report.
- Budget
    - Provide an **itemized** annual budget.
    - The following items may be funded:
        - *Salaries*.
            - Please distinguish between the Principal Investigator's (PI) salary and role during the research time frame and employee/student salary and contribution.
            - Academic applicants are encouraged to prioritize funding for students rather than faculty salaries.
            - For employee/student support, please provide the number of hours with hourly rate, unless requesting a lump sum for a stipend.
            - Fringe expenses should be included as in overall salary totals, not as a separate category. Please include fringe as a sub-line item of salary.
        - *Travel expenses within and between project sites.*
        - *Equipment*. Note that only reasonably priced equipment necessary to accomplish approved research will be funded; funding requests to purchase expensive equipment may be capped or denied.
        - *Report preparation.*
        - *Overhead costs* include planning, staffing, logistics, or marketing not directly attributable to the proposed project. **Overhead shall not exceed 10% of the total grant award.**
    - The following items will **not** be funded:
        - *Accommodation/lodging.*
        - *Travel expenses to/from the project sites*, such as travel from the PI's home institution to the site.
        - *Student tuition*.

    - Provide information about sources of cooperative funding or assistance-in-kind (i.e., match), including supporting documentation. Match is not required but proposals with matching contributions will be viewed favorably.
    - For multi-agency proposals, state funding amounts being requested from each agency. The amount requested from each agency should be proportional to the work being done for each agency.
    - For multi-year projects, the budget must cover the entire duration of project, broken down into distinct annual budgets. Each annual budget must be for the calendar year (i.e., not the academic or fiscal year).
- JCPOS reserves the right to award partial funding or request budget modifications.
- Researcher and Researcher Qualifications
    - On a single page, list all researchers and personnel anticipated to contribute to the project and what their role will be. You must designate a Principal Investigator (PI); **if the PI will not be personally conducting the research (i.e., the PI primarily operates in an advisory capacity), you must also designate a primary researcher for the project.**
    - Provide a resume or curriculum vitae for all researchers. Each resume/CV is limited to two pages.
- Faculty Support Statement (for Student Projects)
    - Student projects require a signed statement from a faculty advisor validating the nature of the proposal and describing the degree of faculty involvement and supervision.
    - Faculty support statements must be on institutional letterhead and submitted as a separate PDF.
    - Faculty advisors are responsible for final report submission to JCPOS should the student fail to do so. Future requests by students of a faculty advisor who has not provided required reports may not be processed.
- References
    - Provide full citations for all literature (including technical documents) referenced in the proposal in the style of *Ecology.* See the Wiley Journals Style Manual, section 3.3.8, Chicago Reference Style, for full citation style.
    - Citations should be in alphabetical order by first author.

Reporting

Reports are expected to be in the general format of a scientific report. Non-traditional report formats (e.g., StoryMaps) may be acceptable, but alternative formats must be discussed and approved by JCPOS staff. A static (i.e., PDF) copy of report content (text, tables, and figures) will still be required if alternative report formats are selected. There is no page limit for final reports.

Student reports must be reviewed by their faculty sponsor prior to the final submittal**.**

Final reports may be published on the JCPOS website or in other materials produced by JCPOS. An oral presentation of the research may also be requested.

Reports must include the following sections:

- Executive summary
    - **One-page**, high-level summary of the work, including background and purpose of the research, brief description of methods, key findings, and management implications.
    - The executive summary should be sufficiently detailed so that it can be read in place of the main document by managers and policymakers to aid decision-making.
- Abstract
    - **One-paragraph** summary of the work, including background and purpose of the research, brief description of methods, key findings, and management implications.
- Introduction
    - Background, referencing relevant literature.
    - Study objective, research questions, and hypotheses.
- Methods, including data analyses
- Results, with appropriate tables and figures
    - Tables and figures should supplement, not duplicate, text.
    - Do not include the same information in a figure and a table.
- Discussion
- Conclusion
    - Include a clear description of the value of the results to JCPOS and management recommendations based on study results.

- Literature cited
    - Provide full citations for all literature (including technical documents) referenced in the proposal in the style of *Ecology.* See the Wiley Journals Style Manual, section 3.3.8, Chicago Reference Style, for full citation style.
    - Citations should be in alphabetical order by first author.
- Data, models, and mapping products
    - All data collected and produced through the project (including models and mapping products) should be provided to JCPOS with the final report. Appropriate formats will be decided through discussion with JCPOS staff advisor.
    - Include a read-me file with a list of all data, models, and mapping products provided with file names and a brief description of the contents of each.

Priority Topics

- **Abert's squirrel habitat**: How do Abert's squirrels (*Sciurus aberti*) utilize habitat in ponderosa pine forest stands? [topic originated with OSMP]
- **Algal blooms**: What are the causes, ecological effects, and mitigation potential of harmful algal blooms along the Front Range? [topic originated with City of Longmont]
- **Amphibian disease and aquatic invasive species**: How can targeted field sampling and environmental DNA (eDNA) methods be used to assess chytrid fungus occurrence in amphibian populations and for early detection of New Zealand mudsnails in aquatic systems? [topic originated with BCPOS]
- **Bat diversity**: How does bat diversity vary across various Front Range water sources? [topic originated with OSMP]
- **Bat population trends**: Using standardized emergence counts, what are the population trends at important bat maternity roosts? Establish or refine repeatable monitoring methods to evaluate changes in roost occupancy and abundance over time and improve understanding of potential impacts associated with white-nose syndrome and other threats. [topic originated with BCPOS]
- **Beaver hydrology and hydrogeology**: Investigate the effects of beaver activity on hydrology and hydrogeology of transition zone and plains streams. [topic originated with BCPOS]
- **Citizen science and poaching**: Do citizen science platforms such as iNaturalist enable poaching of rare and collectable plant species? [topic originated with BCPOS]
- **Climate change and tree regeneration**: Assess how the ranges of various tree species and their ability to regenerate or establish post-disturbance will be impacted by modeled climate change factors in the next several decades. Evaluate the potential for assisted migration or introductions of suitable tree species as a potential management action. [topic originated with BCPOS]
- **Climate impacts to wetlands**: Model vegetation and stream flow dynamics during flood and drought events and interpret long term effects on Front Range wetland and stream ecosystems. [topic originated with OSMP]
- **Dichotomous key development using AI**: Using AI, create an online dichotomous key for the US National Vegetation Classification system for Colorado plant associations. [topic originated with BCPOS]
- **Drill-seeding native grasses**: What is the effectiveness of fall versus spring drill-seeding for native grasses on dryland sites? [topic originated with City of Longmont]

- **Drone application pesticide drift**: What is the extent and pattern of pesticide drift deposition resulting from drone-based applications for winter annual invasive grass control? [topic originated with BCPOS]
- **Drone mapping of falcon nest sites:** How can falcon nest site locations, size of eyries and level of protection from weather, etc. be evaluated using drones? [topic originated with OSMP]
- **Drone mapping of *Physaria bellii***: What is the feasibility of using drone flights to map spatial distribution of *Physaria bellii*, a rare and endemic species? [topic originated with BCPOS]
- **Drone monitoring for forest inventory:** Compared with field data collected from traditional sampling techniques, how effective is drone monitoring for forest inventory in Colorado's Front Range? Is it possible to integrate drone data with the Forest Vegetation Simulator (FVS)?
- **Drought/snowpack**: How can we better interpret the models of a hotter, drier climate on reservoir filling and stock water access and how should that influence investments in wells and other livestock water infrastructure? [topic originated with OSMP]
- **Effects of recreation on convergent lady beetle aggregations:** Convergent lady beetles (*Hippodamia convergens*) have been documented hibernating in overwintering aggregations in JCPOS parks. What are the effects of recreation on convergent lady beetle aggregations? [new for 2027]
- **Efficacy of re-seeding techniques:** How do different re-seeding techniques affect native species recruitment in areas with previous/ongoing weed management? [topic originated with OSMP]
- **Environmental sensors:** What is the feasibility and performance of long-range wide area network (LoRaWAN) sensor networks for remote environmental monitoring in the challenging terrain of OSMP lands? [topic originated with OSMP]
- **Evapotranspiration losses in reservoirs:** What is the best way to quantify evaporation and transpiration losses in reservoirs with and without cattails? [topic originated with OSMP]
- **Field indicators of soil condition:** Identify and assess rapid field indicators of soil condition and predictive value for restoration potential. [topic originated with City of Longmont]
- **Fire history of JCPOS parks using fire scars:** Understanding the fire history of a landscape is important for responsible management. Using fire scars and dendrochronlogy, it is possible to create a temporally and spatially explicit record of

fire on a landscape. Using trees with fire scars on JCPOS lands, what are the historic fire regimes of Jefferson County? [new for 2027]

- **Geohazard and rock stability monitoring at paleo sites:** How can we effectively and efficiently monitor geohazards and rock stability within JCPOS parks, particularly at paleo sites?
- **Grassland birds in managed and native grasslands:** What is the nesting success, productivity, and/or breeding chronology of grassland birds nesting in irrigated hayfields or in native grasslands, including impacts of agricultural management on nesting success? [topic originated with OSMP]
- **Grassland dung beetle inventory:** Dung beetles play an important role in grassland soils, especially in areas with heavy ungulate use, yet the impacts of native and non-native beetles can differ. What is the distribution of scarab beetles across JCPOS grasslands and how should this information be used in management planning? [new for 2027]
- **Greater short-horned lizard habitat suitability:** Develop a contemporary habitat suitability model for greater short-horned lizard (*Phrynosoma hernandesi*) in the Front Range, and optionally, conduct targeted field surveys to confirm presence. [topic originated with BCPOS]
- **Habitat fragmentation and connectivity:** Conduct an analysis of fragmentation in Front Range, particularly related to multi-species habitat condition and connectivity. [topic originated with BCPOS]
- **High-elevation bird diversity and abundance:** Using long-term study data of bird diversity and abundance in high elevation areas, determine analysis potentials, based on collection methodologies, consistency of annual effort levels and other factors. [topic originated with BCPOS]
- **Indaziflam and forage quality for mule deer:** Does indaziflam treatment affect the forage quality of native shrubs and forbs in critical winter range for mule deer? [topic originated with BCPOS]
- **Indaziflam and pine forest health:** Evaluate pine forest health and growth by comparing tree-ring characteristics and seed banks in areas treated with indaziflam to adjacent untreated areas. [topic originated with BCPOS]
- **Indaziflam soil movement:** Looking at slopes of to 30 or 60 degrees, how does indaziflam move through soil? [topic originated with BCPOS]
- **Invasive grasses and seed banks:** Seed-bank composition and dynamics in areas disturbed by cheatgrass or feral rye. [topic originated with City of Longmont]

- **Kochia/Russian thistle/feral rye management:** How effective are various chemical and mechanical control methods on kochia, Russian thistle, and/or feral rye? [topic originated with OSMP]
- **Local versus commercial ecotypes:** How does ecotype (local versus commercial) impact the success of restoration of priority native forbs? [topic originated with City of Longmont]
- **Multiband imagery:** Is it feasible to produce accurate maps of noxious weed cover using multiband imagery obtained from drone flights? [topic originated with OSMP]
- **Native seed collection:** How does collection of multiple species of native seed in soft dough versus hard dough stage affect ripening potential? [topic originated with BCPOS]
- **New lidar technology and forest inventory:** How can the LiGrip O2 handheld lidar scanner and the associated Lidar360 software be integrated into the Front Range forest inventory processes? [topic originated with BCPOS]
- **Nurse crops and natives:** What are the effects of nurse crops on native establishment and invasive species competition? [topic originated with City of Longmont]
- **Pollinator richness and prairie dogs: How** does pollinator richness vary in native grasslands with and without the presence of prairie dogs? [topic originated with BCPOS]
- **Post-prairie dog vegetation communities:** What are the drivers and rates of vegetation recovery following prairie dog removal or colony abandonment, including re-seeding outcomes? [topic originated with City of Longmont]
- **Preble's meadow jumping mouse ecology:** How does Preble's meadow jumping mouse use habitat as related to influences of land management actions such as grazing and habitat restoration? [topic originated with OSMP]
- **Recreation effects on wildlife:** We are broadly interested in recreation effects on wildlife. Sub-topics of interest include spatial and temporal visitation patterns, disturbance thresholds, and influence of activity type (e.g., hike only vs. multi-use trails). We would like to see results discussed with management for the benefit of wildlife in mind. Priority will be given to research that fills knowledge gaps.
- **Red-eared slider inventory in JCPOS ponds and waterways:** The red-eared slider (*Trachemys scripta elegans*) is a non-native turtle found in JCPOS parks. Develop and follow an inventory protocol for this species in JCPOS ponds and waterways. [new for 2027]
- **Reed canarygrass control:** What is the efficacy of different control methods for reed canarygrass in riparian ecosystems? [topic originated with BCPOS]

- **Remote classification of grassland vegetative associations:** Investigate the feasibility of using drones, ground truthing, and Object Based Image Analysis (OBIA) to classify grassland vegetative associations for land managers to apply across a broader area. [topic originated with BCPOS]
- **Remote sensing of fuel:** How accurate and effective are methods using remote sensing to measure fuel loads and moisture content for live and dead fuels on grassland and forested open space properties in the Front Range? [topic originated with BCPOS]
- **Restoration of agricultural lands with prairie dogs:** What restoration methods can be implemented to effectively restore degraded, dry land, old field agricultural land in the presence of prairie dogs at scale and under restricted budget considerations? [topic originated with OSMP]
- **Seed mixes and restoration:** What are the effects of seed mix diversity, seeding density, and species interactions on restoration outcomes? [topic originated with City of Longmont]
- **Small-animal use of culverts and other existing crossing structures:** Assess the extent to which small mammals, amphibians, reptiles, and other small-bodied wildlife use culverts for movement and identify structural or habitat characteristics associated with successful passage. Results should provide recommendations for improving small-animal connectivity through existing or future crossing structures. [topic originated with BCPOS]
- **Smooth brome management:** How do we best transition smooth-brome dominated fields to ones with more drought and heat resilient plant communities? [topic originated with OSMP]
- **Soil and mowing/grazing:** Do soil attributes (temperature, moisture, microbial communities) differ in repeatedly mowed or grazed grasslands as compared to untreated sites in the Wildland Urban Interface? [topic originated with OSMP]
- **Soil biota sampling:** Recent research has shown that the composition of soil microbial communities in areas treated with indaziflam is significantly different than untreated areas, but the mechanism of the change is poorly understood. Further exploration of the effects of indaziflam on soil microbial communities will help inform future cheatgrass treatment and the long-term effects of indaziflam use.
- **Soil handling in restoration sites:** What are the best methods for soil handling in restoration sites? This study should include stripping and stockpiling topsoil, decompaction methods, and reseeding. [topic originated with BCPOS]

- **Soil seed bank longevity in treated and untreated indaziflam sites:** Evaluate the longevity and persistence of native species within the soil seed bank of the Front Range foothills in Boulder County, focusing on prairie ecosystems within the ponderosa pine–shrub steppe landscape. Findings will contribute to understanding how indaziflam treatment influences the re-emergence and increase in species diversity and community composition over time. [topic originated with BCPOS]
- **Stream geomorphology and non-native plants:** How do non-native plants (i.e. crack willow or reed canarygrass) alter stream geomorphology? [topic originated with BCPOS]
- **Unmanned aircraft systems for prairie dog colony mapping**: Demonstrate the feasibility of using drones to map prairie dog colonies. Evaluate appropriate sensors, imagery acquisition methods, analytical techniques, and ground-truthing approaches for accurately delineating occupied prairie dog habitat and supporting repeatable monitoring of colony extent. [topic originated with BCPOS]
- **Using invasive species detection dogs to identify mountain pine beetle infested trees**: Mountain pine beetle (MPB) is often difficult to detect in newly infested pine trees. Detection dogs have been used successfully to identify invasive species. Are detection dogs able to be trained to detect MPB in pine trees? [new for 2027]
- **Visitor use impacts along stream banks/riparian areas**: How does the type and intensity of recreation influence streambank and riparian conditions? Map and assess areas of high use/ undesignated trails and possible areas for improvement. Develop strategies for multi-use along riparian corridors [topic originated with OSMP]
- **Wetland condition thresholds and/or a Vegetation Index of Biotic Integrity (VIBI):** Using existing wetland monitoring and assessment data, develop condition thresholds or a VIBI that can be used to support land management decisions. [topic originated with OSMP]
- **Woody invasive inventory:** Multiple woody invasive spaces are found throughout JCPOS parks; perform an inventory of these species focused on homestead, agricultural, and riparian JCPOS lands. [new for 2027]

- **Alternative text and static digital maps:** Alternative text is an important strategy to improve accessibility for people using screen readers when materials include maps and graphics. However, most guidance on writing alternative text is focused on images; this is little guidance on how detailed written description should be for maps. What is the appropriate level of detail for alternative text for maps?

- **Effectiveness of muddy trail closures:** How effective are different approaches to managing muddy trails in achieving visitor compliance, reducing trail and natural resource impacts, and efficiently using organizational resources? What are compliance rates for muddy trail closures and how do they differ between park-wide closures (White Ranch Park), individual trail closures (North Table Mountain Park), education-only (system-wide), etc.? How does the type and framing of closure messaging affect visitor behavior and compliance? What are the costs/resource impacts associated with implementing and enforcing closures compared to the costs/resource impacts of repairing trail damage or addressing natural resource degradation? [new for 2027]
- **Efficacy of new and old existing stormwater infrastructure:** What is the efficacy of stormwater infrastructure in JCPOS parks, and how does it vary with infrastructure age? With a particular focus on resilience, maintenance, and innovation, how can stormwater management be improved in JCPOS parks?
- **Evaluating the theory of induced demand:** Does installing new climbing bolts alleviate recreation impacts in other comparable climbing areas, or increase rather increase net visitation with the additional impact of a new area?
- **Improving accessibility for digital maps:** Most accessibility guidelines are focused on web-based content in general and must be adapted to apply to digital maps. Using qualitative research techniques (e.g., interviews, focus groups, etc.), investigate how to improve accessibility of digital maps for people with low vision and color vision deficiencies.
- **Map usage by visitor type:** Does map usage vary with visitor type (e.g., mountain bikers vs. hikers vs. equestrians)? Do visitor groups focus on different features of a map based on planned activity? How can JCPOS maps be optimized for different visitor types?
- **Muddy trail closures and closure compliance:** Which parks and/or trailheads that are most frequently closed for muddy conditions are the most likely to have compliance issues? Do different types of messaging (e.g., direct closure language vs. ecocentric, social responsibility-eliciting language like "your public lands are your responsibility") and/or management strategies have different effects on compliance rate?
- **Park porosity and resource impacts:** Do visitor impacts to resources vary with park porosity?
- **Quantitative data for trail usability:** Develop an efficient process for collecting and processing quantitative data pertaining to usability features (cross slope, obstacle height, trail width, running slope, and shade along trails. [new for 2027]

- **Right-sizing trailheads:** What factors should JCPOS use to determine the appropriate size of trailheads for new parks and trailheads? What factors are most predictive of trailhead demand (e.g., park size, trail mileage, trail density, proximity to population centers, variety of recreation opportunities, accessibility, etc.)? What are the consequences of over- or under-sizing trailheads (e.g., visitor experience, resource impacts, cost, roadside parking, etc.)? [new for 2027]
- **Trail crowding and visitor experience:** How do actual and perceived levels of trail crowding affect visitor experience, behavior, and satisfaction at Clear Creek Canyon Park/Clear Creek Trail and other JCPOS parks and trails? How do visitors perceive crowding, and at what points does crowding negatively affect their experience? How do expectations and tolerance for crowding vary based on trail type, park setting, activity, or visitor characteristics? How closely does perceived crowding align with actual visitation levels? What management strategies are most effective at reducing the negative impacts of crowding on regional and highly used trails (such as the Clear Creek Trail)? [new for 2027]
- **Visitation encounter rates:** Using a mobile, observer-based platform such as ArcGIS QuickCapture, how reliably can trail encounter rates and user types be measured, and what magnitude of change in encounter rates can be detected across low, moderate, and high visitation levels? [topic originated with OSMP]
- **Visitor perspectives on trail management techniques:** JCPOS uses several techniques to mitigate conflict between visitor groups, such as directional trails and alternating use days. What are visitor perspectives on these different strategies, and how does it vary with park and management strategy? Do visitor opinions change if they participate in new activities (i.e., a hiker becoming a mountain biker)?
- **Visitor understanding of JCPOS maps:** How intuitive is the symbology used on JCPOS maps (e.g., closure area) to visitors? Similarly, how intuitive are the icons (e.g., bathroom, bouldering area, hiker only, etc.)? We are particularly interested in understanding how park visitors understand the maps the encounter at JCPOS trailheads and in JCPOS brochures.