

Mazama Pocket Gopher Working Group

Annual Meeting | November 6, 2014 | 9:00 am – 12:00 pm | Olympia, WA

In Attendance

Hannah Anderson, Pat Dunn, Elspeth Kim, Bill Kronland, *Center for Natural Lands Management (CNLM)*; Michele McGraw, *Ecological Land Services*; Nick Miller, Jeff Foster, *Joint Base Lewis McChord (JBLM)*; Key McMurry, *Key Environmental Solutions*; Linda Krippner, *Krippner Consulting*; Jeff Swotek, *Natural Resources Conservation Service (NRCS)*; Dave Risvold, *Pierce County*; Jeanne Kinney, Andy Deffobis, *Thurston County*; Kim Flotlin, Taylor Goforth, Judy Lantor, Ryan McReynolds, *US Fish and Wildlife Service (USFWS)*; Jim Kenagy, *University of Washington*; Mary Linders, Gail Olson, Tammy Schmidt, Derek Stinson, Michelle Tirhi, *Washington Dept. of Fish and Wildlife (WDFW)*; Linda Saunders, Anne Schuster, *Wolf Haven*; Cathy Connelly.

Recovery Planning and Updates

Washington State Recovery Planning – Derek Stinson, WDFW

WDFW is revising the draft state recovery plan and expect to have a final complete in early 2015. Recovery objectives in the plan include the need for populations to stay stable or increase in size for 10 years. The rationale behind this is that many of the populations are doing okay, and minimum viable population of gophers is not known. Instead of trying to identify an ideal population size, the focus instead is on holding steady or increasing each population.

The 2005 status report was prepared under the assumption that the subspecies of Thurston County should be merged into one. This assumption was based on UW genetic research. Since then the conventional wisdom has acknowledged that nuclear DNA data is also needed to revise taxonomy. With this new assumption, the recovery plan acknowledges that it is important to maintain some discrete populations that contain genetic diversity. Rather than revise taxonomy, the new genetic analysis is being used to help inform the appropriate management units utilizing a pattern of relatedness.

Federal Recovery Planning – Kim Flotlin, USFWS

Since the 2013 meeting, the four subspecies of the Mazama pocket gopher (Roy Prairie, Olympia, Tenino, Yelm) were federally listed as Threatened, and critical habitat was designated for all subspecies except Roy Prairie. With habitat loss being a major threat, USFWS is working heavily with Thurston County to develop a Habitat Conservation Plan (HCP) that will function to minimize impacts to MPGs and their habitat, and will include a conservation banking strategy and the creation of Reserve design criteria (this project is being carried out with WDFW as well).

For more information on the listing, including info about the 4D rule, [click here](#) (provides links to fact sheet, ID card, landowner incentive info, and more).

Recovery funding within the USFWS is lacking due to the massive numbers of listing actions occurring within a short time span. Although there is likely to be a recovery team formed, it is as yet unclear how that will happen. Until there is a recovery plan in place, the MPG Working Group Action Plan will be used as a guide for conservation actions which should be taken. When the recovery plan is put together, it will provide the information that the Action Plan doesn't provide (and isn't meant to provide) – criteria for accomplishments (i.e. “At what point would you say the objective has been achieved?”)

How Landowners are Responding to the Listing - Key McMurry, Key Environmental Solutions

Consultants are hearing from many landowners that they are confused about the various pieces of information resulting from the listing (critical habitat, subspecies, etc.). USFWS and Thurston County are both working to get the information out to landowners, and further communications between the agencies, consultants, and private landowners will continue to improve understanding and reduce confusion. A full size version of the decision tree pictured can be found [here](#) (or by clicking the image) and helps landowners determine what actions to take.

One thing to keep in mind is that everyone is adjusting to the listing – we're still in the midst of the 'working out period'. It will continue to improve and everyone needs to be patient.

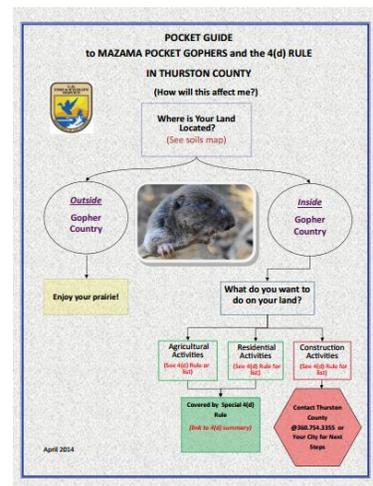


Figure 1 / How does the Mazama pocket gopher Endangered Species Act listing affect me? (Decision Tree)

Project Updates

West Rocky Translocation Study – Gail Olson, WDFW

The translocation study began with the first round of releases at West Rocky in the fall of 2009. This year, data was collected with the goal of determining the status of the existing population, as translocations have not occurred for a few years. The objective is to estimate the spring breeding population size, estimate survival and recruitment rates, project future population growth and establish a baseline for monitoring.

In 2014, the same 50m x 50m cell grid system was used as in 2013, and all cells at West Rocky were surveyed for presence based on mounds. A systematic selection of occupied cells were trapped with the aim of capturing 'all' pocket gophers in the selected cells. Trapping was conducted from early April through the end of June, and although we aimed to just get adults, many juveniles were trapped in 2014. .. Only adult capture numbers were used to project total spring breeding population size. The resulting trapping statistics were as follows: 362 individuals

captured - 254 new captures (untagged) and 108 recaptures (tagged). Of the 362 total captures, there were 283 adults, 63 juveniles, and 16 with unknown ages. Of the 108 recaptures, sorted by release cohort: 15 were from 2011, 7 from 2010, 3 from 2009. Considering that most gophers live less than 2 years, finding ones from 2009, that are at least 5 years old, is very exciting. The male/female ratio almost exactly 1/1. The 2014 West Rocky population estimate, based on the systematic sample only and with a 95% CI, is 438-510 gophers.

WDFW will be switching to fall mound surveys to monitor the status of the population, rather than conducting 3 months of intensive monitoring to assess the spring population. A all mound survey was conducted in October 2014, for comparison with the spring mound survey. Future plans for this project include completing survival and recruitment analyses, estimating the 2013 population size based on mark-recapture analyses, updating the projection matrix to estimate future population growth, and continuing to monitor status via the fall mound surveys (as discussed earlier) in future years.

Standardized Survey Methodology – Gail Olson, WDFW

A new project to develop a standardized survey method is being supported by ACUB funding. The goal of the project is to develop standard occupancy-based methods to determine site occupancy and monitor site-specific trends in pocket gopher populations. The objectives of the project are to develop a standardized protocol to assess whether sites are occupied by MPG, develop occupancy-based protocols to monitor site-specific population trends, and develop site-specific monitoring plans for all occupied ACUB sites. This project aims to provide consistency among the many different methods and occupancy survey versions that have been used over the years, many of which were developed for project-specific purposes. Providing consistency will allow for data to be used and compared across projects, and should instill confidence in the validity of results.

Surveys at JBLM – Bill Kronland, CNLM and Nick Miller, JBLM

Along with JBLM, CNLM carried out a two-year survey effort on 6,633 acres of USFWS-defined Priority Habitat Areas at JBLM. Belt transects were conducted, and mound clusters were counted. In October and November 2012, 73 transects were conducted on 7 prairies. In October and November 2013, 52 transects were conducted on 10 prairies. Gopher concentrations were found on Johnson, Weir, Marion, South Impact Area, Artillery Impact Area, and Training Area 6. Surveys are planned for TA14 to expand further on prairies where gophers haven't been seen before. A noted observation is that mound densities didn't differ between years. Some survey limitations that occurred hope to be addressed using the results from Gail Olson's standardized survey method (see previous update).

Detection Dog Training – Kim Flotlin, USFWS

There have been multiple issues that have held up the training, such as not having enough scent to train the dogs, but once these issues are sorted out the project will resume. The goal is to provide a quick and easy way to determine if gophers are present at a site.

Sentinel Landscapes – Hannah Anderson, CNLM

The Sentinel Landscapes program is a partnership between three federal agencies: Department of the Interior, Department of Agriculture, and Department of Defense. Sentinel Landscapes are places where preserving the working and rural characters of our Nation's private lands is important for both national defense and conservation priorities. In December 2013, DOI, USDA, and DOD [signed an MOU](#) to implement this program. This brings together local and state agencies, private organizations, private landowners, and the three big agencies. These groups are all very well integrated in this effort. Each of these three agencies will use their existing programs (ACUB, EQIP, etc) to advance the goals of the Sentinel Landscape. The South Sound Prairies around Joint Base Lewis-McChord as the pilot designation for the program, and aims to:

- Provide regulatory relief through the Thurston County HCP and Mazama Meadows Conservation Bank (both in development).
- Provide technical assistance to private landowners and habitat assessment, restoration, and enhancement on protected lands.
- Advance science by better understanding the science behind our restoration techniques and using that knowledge to improve our work.
- Increase communications through things such as workshops, communications planning, expanding web presence, earned media, and event participation.

CNLM has recently contracted a dedicated Sentinel Landscapes coordinator to advance and expand these goals.

Thurston County Habitat Conservation Planning – Andy Deffobis, Thurston County

Documents for the 30-year HCP are currently being drafted by consultants and should be in hand by the end of Q1 2015. These should be reviewed by Thurston County, FWS, and available for public review by the end of Q2 2015. Final approval is planned for mid-2016.

This past year, permits for projects on gopher soils or adjacent to gopher soils were submitted. After working out a process with USFWS to screen sites for projects, 400 site visits were carried out between June 1 and October 31, 2014. Many sites with proposed projects either did not have gophers or gophers were in areas not problematic to project. Sites with gophers in problematic areas receive increased communication between the landowner and USFWS. Sites that were reviewed received a letter from USFWS within two weeks of the site visit, stating if there is a conflict or not. Letters that approve projects are time-limited and typically provide one year of coverage for the specific proposed project to be conducted.

NRCS Programs – Jeff Swotek, NRCS

The new [Farm Bill](#) means some changes to NRCS programs. [EQIP \(Environmental Quality Incentives Program\)](#) provides funding for on the ground projects. Owners of land in agricultural or forest production or persons who are engaged in livestock, agricultural or forest production on

eligible land and that have a natural resource concern on the land may participate in EQIP. The landowner has to maintain projects for ‘the life of the project’, which differs by project.

Technical Assistance Project - Michelle Tirhi, WDFW

Michelle and others at WDFW are working on a project to reach out to landowners who have existing set-asides to improve technical assistance. A pilot project to see how it will work and what can be accomplished will run from November 2014 – December 2015. The focus is on conservation areas with a minimum of 150 acres, and the hope is to work with 30-40 landowners.

The hope is that the original habitat management plan put in place can be reviewed, followed by a walk of the property with the landowner, and then a discussion about what can be done to enhance the property. This discussion would include discussions about how to accomplish recommended actions and what resources are available. Treatment schedules will be developed (existing ones reviewed) with landowners to meet the desires of USFWS and WDFW. Some funds (minimal) will be provided to support initial weed control. Hope to work with NRCS to match landowners with NRCS programs and funding.

Outreach and Communications – Taylor Goforth, USFWS

USFWS and Thurston County followed a timeline to provide habitat-focused outreach in advance of and following the federal listing of the gopher. The key message that WDFW and Thurston County are trying to get out is that collaboration is key to conserving our prairies; that conserving our prairies helps JBLM; and that with responsible development and by working together, control can be kept local.

Outreach included: news & updates, species of concern, partners, and resources on the HCP website 6 months prior to the listing. 2-3 months prior FAQ’s answering questions and dispelling myths was posted. A video on the benefits of the HCP and an appearance by county commissioners and USFWS appeared on TCTV 2 months prior. The county commissioners had an [op-ed in the Olympian](#) at the time of the listing (April 2014). Following the listing, Andy Deffobis from Thurston County and County Commissioner Romero hosted coffee chats throughout the county to answer questions, and a video was created about the prairie ecosystem and the history of the listing. In June, the site visits that Andy spoke of (see above) began.

As a result of this work, the Prairie Communications Roundtable was convened, which includes representatives from Thurston Co., CNLM, NRCS, USFWS, Wolf Haven, Conservation District, Historic Commission, Colvin and Nelson Ranches, Bush Prairie Farm, and JBLM. The goal of the roundtable is to provide an opportunity for everyone to be involved; to illustrate that there are many entities working together as one group towards prairie conservation; and to provide a one-stop source of information.

Action Planning

The updated action plan can be found on the following pages. Ranked priorities are as follows:

- 1) Protect occupied habitat via land purchase, easements, voluntary conservation, etc.
- 2) Create long-term strategy to address development pressure via regulation (e.g. mitigation bank, interim permitting strategy, HCP).
- 3) Develop a survey/monitoring scheme to addresses probability of occurrence, assess site occupancy, and monitor trends.
- 4) Use genetic information to map boundaries of distinct populations (demes) to inform management units and/or focal areas.
- 5) Implement habitat restoration, maintenance and enhancement.
- 6) Develop and implement a regional, cooperative communications strategy for multiple audiences.
- 7) Develop and implement spatially-explicit plans to restore, enhance, maintain habitat.
- 8) Identify important habitat features.
- 9) Assess effectiveness of habitat protection areas for gopher conservation (e.g., set-aside, mitigation bank).
- 10) Maintain active working group, information sharing, and collaborative action.
- 11) Determine population vital rates and factors that might affect those rates (e.g., survival, reproduction, etc.) to inform determination of sustainable population size relative to habitat patch size and quality.
- 12) Evaluate the range-wide need to increase numbers of populations. If needed, identify if this should be done through translocation or by increasing sizes of existing populations through habitat manipulations.

2014-2015 Mazama Pocket Gopher Action Plan - Updated 6 November 2014

The purpose of this action plan is to identify the next-best conservation actions that can be conducted over the next 3-5 years to support MPG recovery.

Category	Ref. #	Task Synopsis	Rank	Status and Implementing Party
1. Survey and Monitoring	1.1	1. Develop a survey/monitoring scheme to addresses probability of occurrence, assess site occupancy, and monitor trends.	3	<i>In Progress</i> WDFW
	1.1.a	a. Identify the type, number and timing of surveys required to determine occupancy, including refining process to determine area occupied.		<i>In Progress</i> WDFW, FWS
	1.1.b	b. Identify the type, number and timing of surveys required to achieve recovery objectives (e.g. determine population numbers and trends).		<i>In Progress</i> WDFW
	1.1.c	c. Develop and test cost effective and efficient monitoring protocols at multiple scales.		
	1.2	2. Implement survey/monitoring scheme.		
	1.2.a	a. Refine and update gopher distribution.		<i>Ongoing</i> (WDFW), USFWS, Thurston Co. JBLM, CNLM
	1.2.b	b. Assess population trend.		
	1.2.c	c. Utilize WDFW Species Occurrence Database (WSDM).		
2. Protect Existing Populations and Habitat	2.1	1. Protect occupied habitat via land purchase, easements, voluntary conservation, etc.	1	
	2.1.a	a. Develop and implement management agreements (e.g. ESMP, Mgmt. Plan).		<i>In Progress</i> JBLM, WDFW, CNLM, FWS, Thurston Co.
	2.1.b	b. Develop opportunities to explicitly implement gopher protection through NRCS Farm Bill programs.		
	2.1.c	c. Pursue opportunities within existing programs to purchase land (e.g. West Rocky Prairie via WWRP; ACUB; Section 6).		
	2.1.d	d. Explicitly include gophers in incentive programs that support habitat protection, (e.g. ACEP).		<i>Ongoing</i> NRCS
	2.2	2. Protect occupied habitat via regulation.		
	2.2.a	a. Create long-term strategy to address development pressure via regulation (e.g. mitigation bank, interim permitting strategy, HCP).	2	<i>In Progress</i> Thurston County, FWS, WDFW, CNLM
	2.2.b	b. Improve conservation effectiveness and implementation of regulatory process for local permitting offices, consultants and DFW.		<i>Ongoing</i> WDFW, Thurston Co.
	2.2.b.i	<i>i. Develop and implement compliance monitoring measures</i>		
	2.2.c	c. Assess effectiveness of habitat protection areas for gopher conservation (e.g., set-aside, mitigation bank).	9	
	2.2.c.i	<i>i. Develop conservation performance criteria for habitat protection areas established through HCP and other programs</i>		
2.3	3. Identify priority conservation areas for MPG (e.g. Reserve Design).		<i>Ongoing</i> (FWS, Thurston Co., WDFW)	
3. Manage, Enhance, and Maintain Habitat	3.1	1. Implement habitat restoration, maintenance and enhancement.	5	
	3.1.a	a. Control pest plants at occupied sites (e.g. trees, shrubs, pasture grasses).		<i>Ongoing</i>
	3.1.b	b. Expand occupied habitat through restoration (e.g. tree removal).		
	3.1.c	c. Assess site-specific vegetation composition and structure, improve as needed.		
	3.2	2. Develop and implement spatially-explicit plans to restore, enhance, maintain habitat.	7	
3.2.a	a. Identify compatible/incompatible land uses and redirect incompatible land use (e.g. recreation, military training, grazing, prescribed fire).			

	3.2.b	b. Explicitly include gophers in incentive programs that support habitat management (e.g. FWS Partners Program, NRCS Stewardship Programs/EQIP).		Ongoing FWS, NRCS
	3.3	3. Identify important habitat features.	8	In Progress (Initial scoping)
	3.3.a	a. Identify vegetation structure and functional group composition favorable to Mazama pocket gophers.		
	3.3.b	b. Identify the level and type of disturbance (e.g. fire) beneficial to gophers and/or their habitat e.g., source, frequency, intensity, duration, and spatial extent.		
	3.3.c	c. Determine relationship between gopher population demographics and soil type and structure.		
4. Increase Sizes and Numbers of Populations	4.1	1. Evaluate the range-wide need to increase numbers of populations. If needed, identify if this should be done through translocation or by increasing sizes of existing populations through habitat manipulations.	12	
	4.2	2. Evaluate translocation as a tool to maximize conservation value on protected lands and minimize loss.		
	4.2.a	a. Identify sites that are suitable for translocation (actual implementation of translocation is pending regulatory decisions).		
	4.2.a.i	i. Identify, evaluate, and prioritize potential translocation sites		
	4.2.a.ii	ii. Develop criteria to identify source populations for translocations		
	4.2.a.iii	iii. Incorporate genetic and demographic research results as appropriate		
	4.2.b	b. Conduct translocation research.		
	4.2.b.i	i. Evaluate efficacy and feasibility of translocating gophers		In Progress WDFW
4.3.b.ii	ii. Refine translocation methods			
5. Additional Research	5.1	1. Conduct demographic and genetic studies.		
	5.1.a	a. Use genetic information to map boundaries of distinct populations (demes) to inform management units and/or focal areas.	4	In Progress FWS, WDFW
	5.1.b	b. Determine population vital rates and factors that might affect those rates (e.g., survival, reproduction, etc.) to inform determination of sustainable population size relative to habitat patch size and quality.	11	
	5.1.c	c. Identify characteristics of dispersal that would affect population structure and viability (e.g., timing, distance, and demographics).		In Progress WDFW
	5.1.d	d. Evaluate genetic diversity of existing populations.		
6. Communications and Coordination	6.1	1. Develop and implement a regional, cooperative communications strategy for multiple audiences.	6	In Progress (see below)
	6.1.a	a. Conduct direct outreach to landowners of existing populations.		In Progress WDFW, Thurston Co., CNLM, Cons. Dist.
	6.1.b	b. Improve public perception and understanding of gophers and gopher-related conservation actions through positive PR & other means.		In Progress Round Table
	6.1.c	c. Educate public on regulatory and incentive programs (e.g., ESA, CAO, HCP, Farm Bill, Futures).		Ongoing Thurston Co., NRCS
	6.1.d	d. Curate and condense information packet (for private landowners, agricultural landowners) for voluntary conservation (e.g. who to contact, how to do it) utilizing existing information.		Planned USFWS (support by Thurston Co, CNLM)
	6.1.e	e. Update habitat management guidance for land managers.		
	6.1.f	f. Update, clarify, and explicitly link private, federal, county and state on-line information (e.g., PHS, CAO).		Ongoing
	6.2	2. Maintain active working group, information sharing, and collaborative action.	10	Ongoing CNLM, Partners