

**ELK UNIT MANAGEMENT PLAN
PANGUITCH LAKE UNIT #28
2016**

LAND OWNERSHIP

Garfield, Iron and Kane counties--Boundary begins at US-89 and SR-14; north on US-89 to SR-20; west on SR-20 to I-15; south on I-15 to SR-14; east on SR-14 to US-89.

RANGE AREA AND APPROXIMATE OWNERSHIP

Ownership	Winter Range		Summer Range	
	Area (acres)	Percent	Area (acres)	Percent
US Forest Service	47,560	53%	238,300	75%
Bureau of Land Management	29,845	33%	14,578	5%
Utah State Institutional Trust Lands	3544	8%	3498	2%
Private	8828	5%	49,000	15%
Utah Division of Wildlife Resources	27	1%	1289	1%
National Park Service	0	0%	6005	2%
TOTAL	89,804	100	312,670	100

UNIT MANAGEMENT GOALS

Manage for a population of elk capable of providing a broad range of recreational opportunities including hunting and viewing. Maintain healthy elk populations at biologically and socially sustainable levels. Continue with the limited entry bull harvest strategy.

POPULATION MANAGEMENT OBJECTIVES

Target Winter Herd Size: Manage for a range between 1,100 – 1,300 total elk wintering across the unit to account for variability in wintering numbers, with a target number of 1,200. If the population estimate is between 1,100-1,300, the unit will be considered at objective.

Bull Age Structure: Manage for an average age of harvest of (6.5 – 7) as outlined in the Statewide Elk Management Plan.

Recruitment: Aerial surveys and annual preseason classification surveys (July – August) will be used to monitor the population. Population modeling will also be used to generate annual postseason (winter) population estimates.

Harvest: General season spike-only and limited entry bull hunt opportunities are methods of bull harvest. Antlerless harvest using a variety of harvest methods and seasons will be the primary means to achieving the wintering population objective.

Current Status

Population trends can be found in Figures 1-3. The most recent aerial surveys were conducted in January 2010 and in 2016 with estimates of 785 and 1,700, respectively. Due to low counts in 2010,

conservative antlerless harvest was implemented until the 2016 count when a more aggressive cow harvest structure was employed.

2011 Advisory Committee - The unit elk committee met in October 2011 to discuss elk management on this unit and an increase in the population objective. It was recommended to maintain the 1,100 wintering elk objective at that time with plans for an increase if habitat projects continued and range trends continued to improve.

2016 Advisory Committee – The unit elk committee met in August 2016 and discussed elk management on this unit and potentially adjusting the population objective. A proposal was made to manage for a range of 1,100 to 1,500 with a target population of 1,300. After receiving comments from committee members, it was agreed that a smaller range be adopted of 1,100 to 1,300, with a target population of 1,200 elk.

Barriers to Achieving Unit Population Objectives

- Drought and Utilization – dry conditions or high elk utilization is a concern on this unit.
- Depredation – Some of the local landowners and public lands grazers experience depredation to private lands and fence damages from elk.

Strategies for Removing Barriers to Population Objectives

- Drought and Utilization – If drought related conditions and high elk densities are negatively impacting habitat, recommend additional antlerless elk permits at the August Wildlife Board meeting.
- Depredation - Take all steps necessary to minimize depredation using management strategies within state law and DWR policies to increase tolerance of elk on private and public lands.
- Continue the cooperative program with Panguitch Lake Landowners Association.
- Support statewide landowner incentive programs within the Statewide Elk Management Plan.
- Use new antlerless harvest tools identified in the Statewide Elk Management Plan as needed (private lands permits, cow harvest with a muzzleloader spike bull permit, etc).
- Support outreach efforts to document benefits elk on Panguitch Lake, particularly to local economies (hunting and viewing, landowner permits, shed antler gathering, etc.).
- Communicate with stakeholders regarding elk management and habitat conditions.

HABITAT MANAGEMENT

Current Status

Overall, range conditions on the Panguitch Lake WMU are good with stable to increasing range conditions on most of the unit (UDWR Range Trend / USFS and BLM Vegetation Monitoring). Some challenges facing elk habitat include:

- conifer encroachment of aspen stands
- recovering forests from epidemic of spruce bark beetle
- water availability and distribution that is dependent on precipitation

Many habitat restoration projects have been completed in the past 10 years that have improved over 60,000 acres of habitat with several thousand additional acres proposed for restoration (Appendix 1 & 2).

Unit Habitat Objectives

- Continue to be committed to the statewide goal of supporting habitat projects that increase forage for both big game and livestock.
- Maintain and/or enhance forage production through direct range improvements throughout the unit to achieve population management objectives.
- Work with private, state and federal agencies to maintain and protect crucial ranges. Continue projects with USFS, BLM, state and private entities to enhance habitat across the unit.
- Provide improved habitat security and escapement opportunities for elk through support and cooperation of approved Dixie National Forest Travel Plan.
- Encourage the maintenance and development of water sources throughout the unit. Focus on providing water sources in remote areas or on abandoned/sources such as old water troughs, ponds, and tanks that can benefit both livestock and wildlife.
- Discourage the encroachment of pinyon and juniper (PJ) trees into sagebrush and other habitats.
- Work with land management agencies to improve calving habitat and minimize disturbance in these areas. Seek opportunities to improve aspen communities, and some sagebrush ranges where calving and foraging are occurring.
- Discourage high densities of elk wintering along the Parowan Front below 7,000ft to protect crucial deer range, reduce human safety issues from vehicle collisions, and minimize depredation issues.

Barriers to Achieving Unit Habitat Objectives

Restoration efforts on summer ranges to improve forest health and address watershed productivity are needed. Private landowners, livestock permittees, federal and state land management agencies and the Utah Division of Wildlife Resources are encouraged to continue to work together to conduct landscape wide treatments. In an effort to regenerate aspen communities, land managers are encouraged to use fire, mechanical or chemical treatments on landscape level projects.

New water developments and maintenance of existing water sources can be an issue in drier portions of the unit and in drought conditions.

Drought conditions and utilization standards can create conflict if livestock reductions are imposed.

Improved communication about project needs and ideas are needed to facilitate greater cooperative efforts.

Strategies for Removing Barriers to Habitat Objectives

Encourage improved communication among stakeholders through Utah Partners for Conservation and Development as well as annual interagency coordination meetings. Communicate annually with advisory committee on elk population status and annual recommendations.

Use range trend and habitat improvement data to make appropriate habitat-related decisions. Antlerless elk harvest may be recommended if drought conditions exist and/or if there is excessive habitat utilization. Any of these hunts should have definitive boundaries around the problem area and be focused early in the season if possible (example: Markagunt Plateau).

Encourage USFS and BLM to control uses that negatively impact bottomlands and riparian areas. Focus areas should include Deer Creek, Little Valleys, and areas adjacent to the Cedar Breaks National Monument.

Maintain investments in previous habitat projects such as seedings, chainings, and water developments.

A goal from the elk committee was to encourage at least 10,000 acres of treatment in elk habitat during this plan.

RECREATION MANAGEMENT OBJECTIVES

Current Status

The 2015 Statewide Management Plan for Elk increased the average age of harvest objective from (5.5 - 6) up to (6.5 – 7). This was in response to public input through the 2011 Advisory Committee as well as the RAC and Wildlife Board processes. (Harvest trends of bull elk can be found in Figures 4 and 5.)

Barriers to Achieving Unit Recreation Objectives

There has been some conflict in balancing opportunity and quality in bull harvest strategies. A goal of this plan is to continue a public relations effort to promote the importance of maintaining the specified average age of harvested bulls. The increase in age objective will likely result in reduced permit numbers.

Strategies for Removing Barriers to Recreation Objectives

- Bull Age Structure - Monitor age class structure of the bull population through the use of harvest surveys and tooth analysis. Additionally, data will be analyzed from preseason classification surveys, aerial census surveys, check stations, and field hunter checks.
- Support outreach efforts to document benefits of higher quality bull elk on Panguitch Lake, particularly to local economies (landowner permits, shed antler gathering, etc.).
- Support spike bull hunting to promote healthy bull to cow ratios and hunting opportunities.

Figure 1. Population estimates of elk on Panguitch Lake WMU #28.

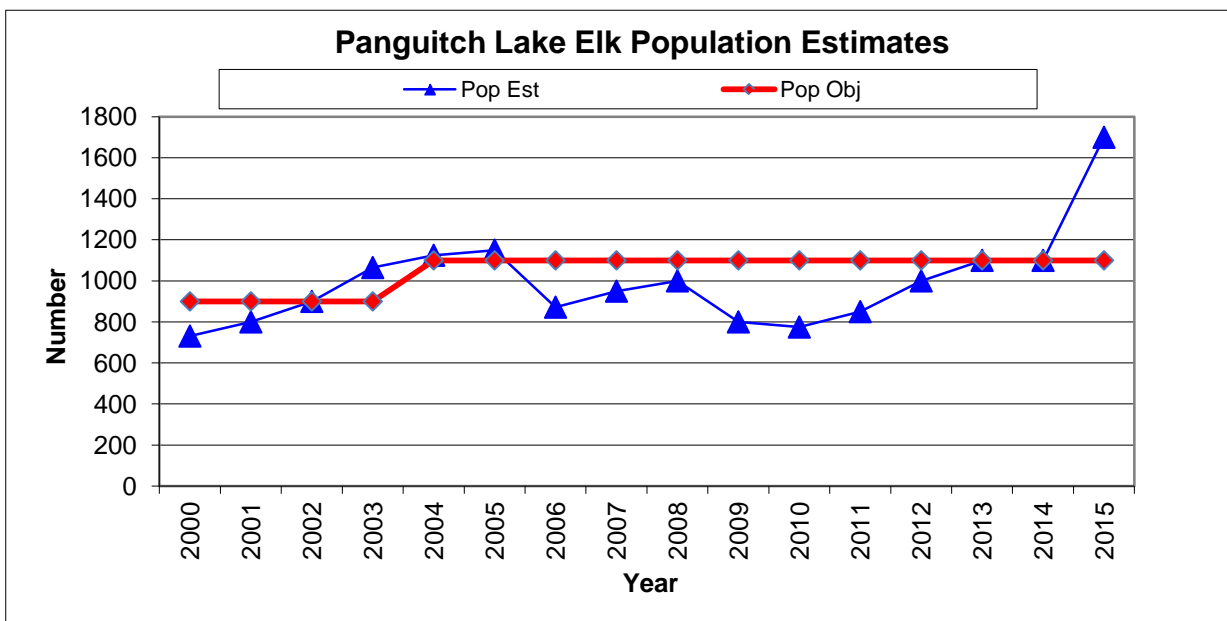


Figure 2. Antlerless elk hunters and harvest on Panguitch Lake WMU #28.

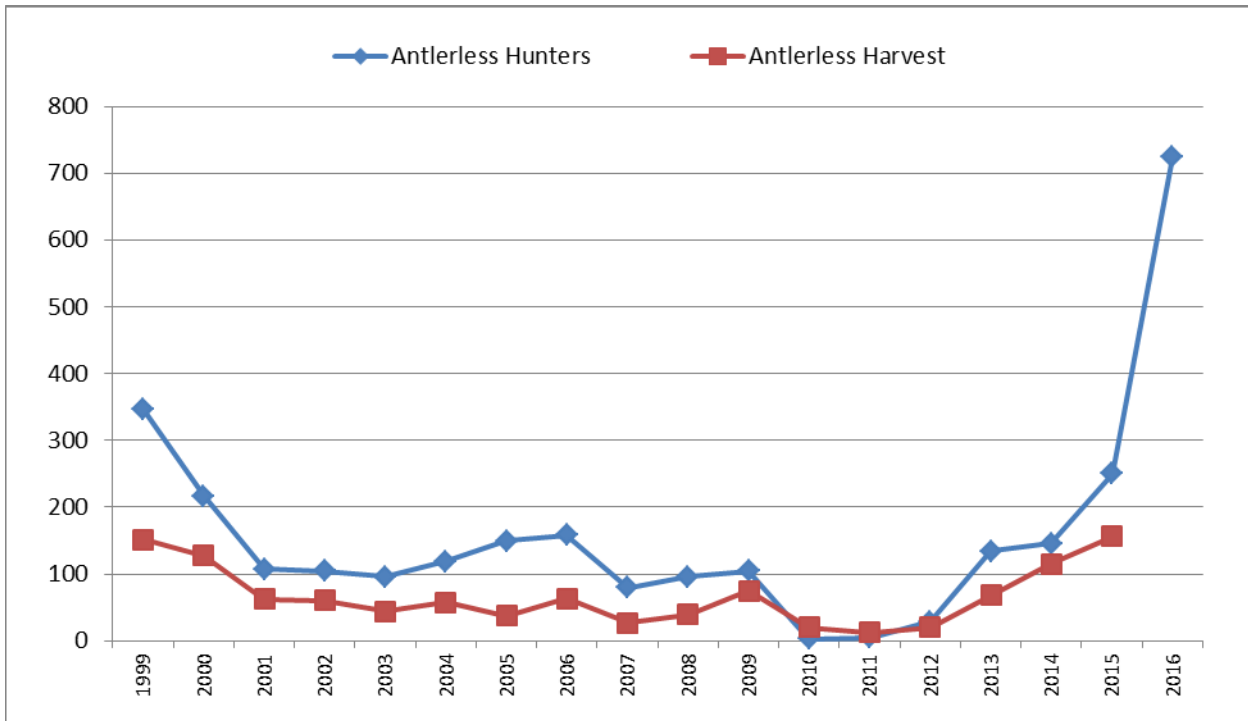


Figure 3. Preseason classification surveys of elk on Panguitch Lake WMU #28.

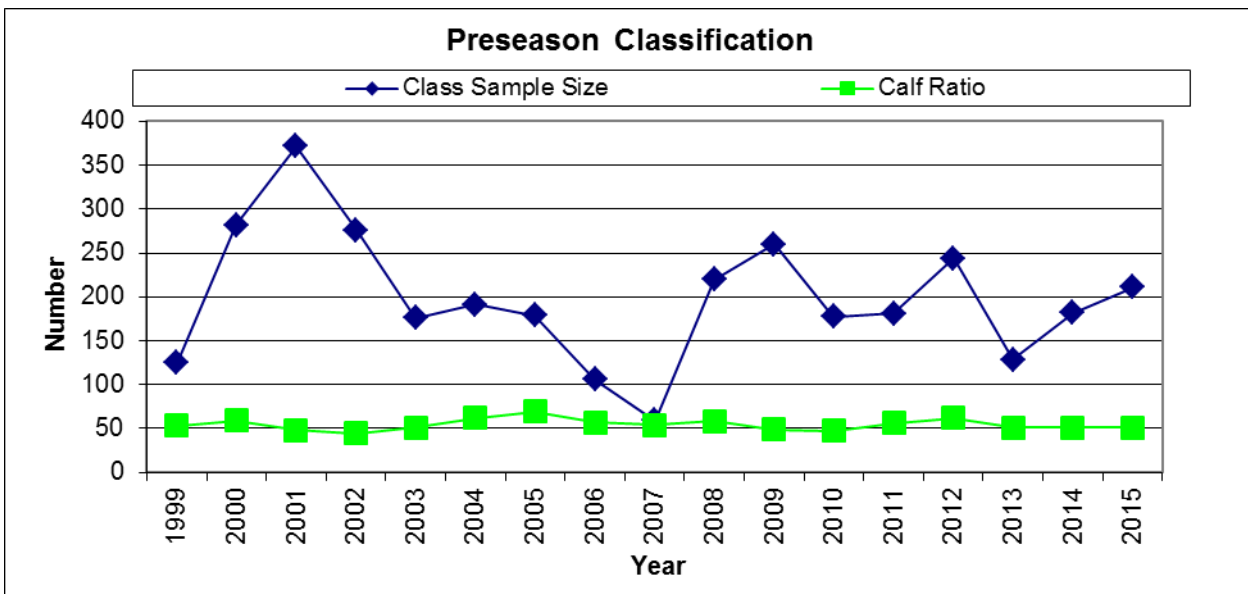


Figure 4. Trend of limited entry bull elk permits and harvest on Panguitch Lake WMU #28.

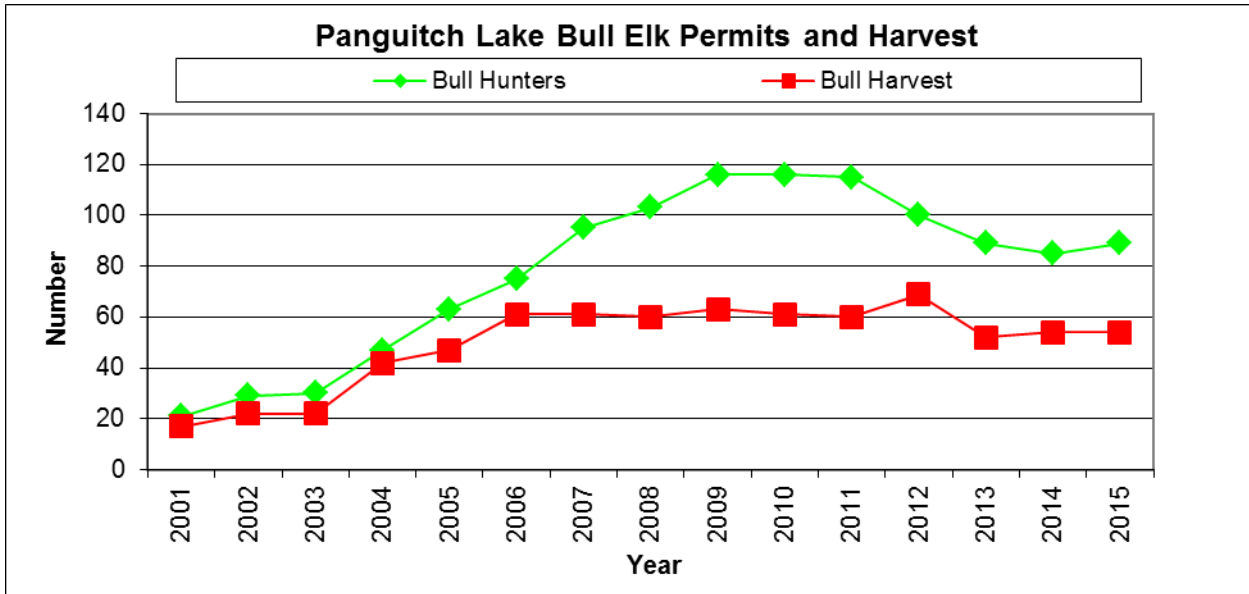
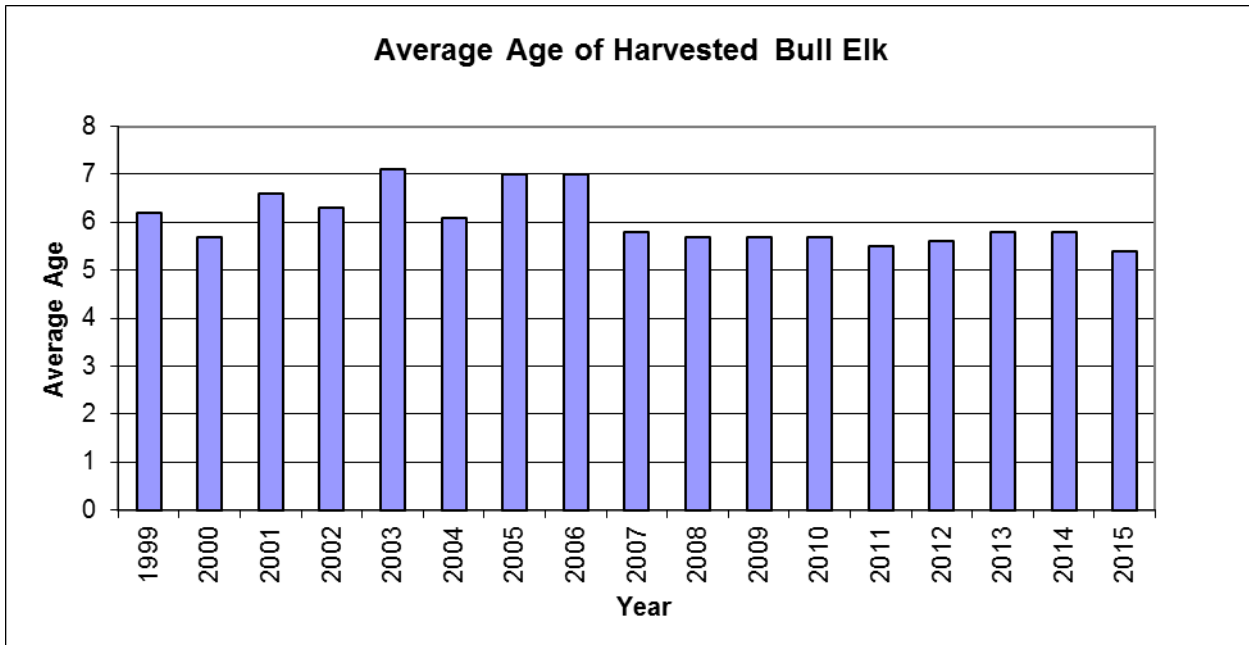
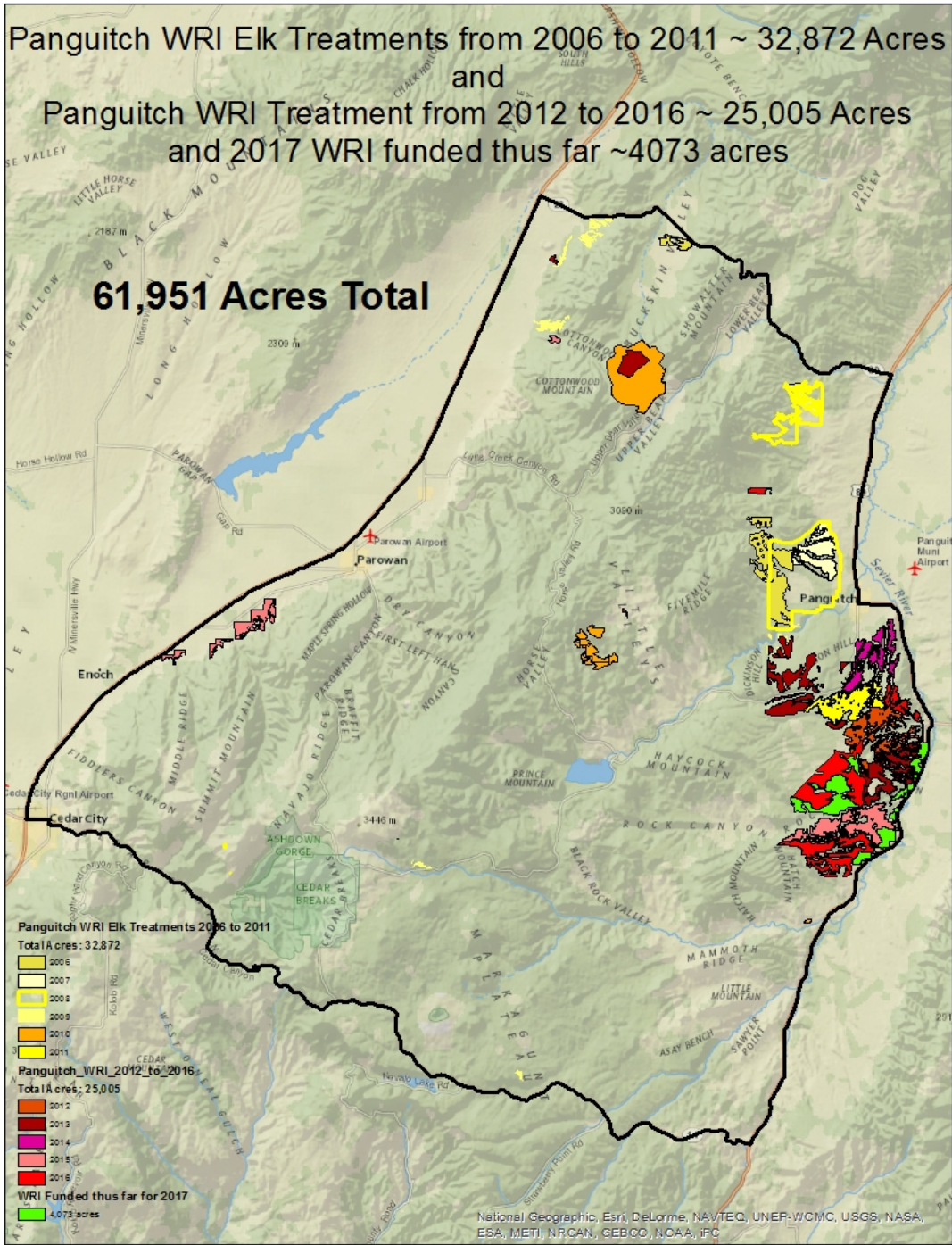


Figure 5. Average age of harvested bull elk on Panguitch Lake WMU #28.



Appendix 1. Habitat restoration efforts on the Panguitch Lake WMU #28 (2006-2016).



Appendix 2. Recent habitat projects in elk habitat on the Panguitch Lake WMU #28.

Fiscal Year	Title	Lead Agency	Acres
2006	Five Mile Hollow Sagebrush Restoration - Year 1	Bureau of Land Management	2477
2006	Tebbs Hollow Sagebrush Restoration PJ Removal	U.S. Forest Service	735
2006	Mud Springs Sagebrush and PJ Encroachment Project	U.S. Forest Service	1584
2006	Buckskin Valley Hwy 20	Bureau of Land Management	436
2007	Tebbs Hollow/Mud Springs Sagebrush and PJ Treatment	U.S. Forest Service	735
2007	Fivemile Hollow Sagebrush Restoration - Year 2	Bureau of Land Management	2201
2008	Tebbs Hollow Pinyon/Juniper Encroachment Project	U.S. Forest Service	2379
2008	Fivemile Hollow Sagebrush Restoration - Year 3	Bureau of Land Management	10387
2008	D. Burton Discretionary Seed	Utah Division of Wildlife Resources	2
2009	North Cottonwood Canyon Lop and Scatter/Bullhog Treatment	Utah Division of Wildlife Resources	1318
2009	Panguitch Creek WMA PJ Thinning	Utah Division of Wildlife Resources	615
2009	Castle Valley Aspen Regeneration	U.S. Forest Service	109
2009	Duck Creek Aspen Regeneration	U.S. Forest Service	76
2010	Edward Springs Rx Fire	U.S. Forest Service	5686
2010	Horse Valley Fire Rehab	Utah Division of Forestry, Fire & State Lands	483
2010	B.D. Discretionary Seed	Utah Division of Wildlife Resources	34
2010	Horse Valley Fire Area Seeding	U.S. Forest Service	812
2011	South Canyon	Bureau of Land Management	2804
2013	Annual Habitat Restoration Project Maintenance	Bureau of Land Management	2044
2012	South Canyon Year 2	Bureau of Land Management	3046
2013	Edward Springs Prescribed Burn Seeding Phase 2	U.S. Forest Service	927
2013	South Canyon (Hillsdale)	Bureau of Land Management	3651
2013	Laub and Cotton Fire Rehab	Utah Division of Wildlife Resources	69
2014	South Canyon (Graveyard)	Bureau of Land Management	2383
2015	South Canyon (Rock Canyon)	Bureau of Land Management	3153
2015	Parowan Front (Cottonwood and Summit) Chaining Maintenance Project	U.S. Forest Service	1780
2016	South Canyon (Limestone)	Bureau of Land Management	6870
2016	Alton/South Canyon Retreatment - large tree removal	Bureau of Land Management	854
2016	Dixie National Forest FY 2016 Exclosure Repair and Rebuild project	U.S. Forest Service	24
2016	Sandy Creek Ranch Rabbitbrush Removal	Utah Division of Wildlife Resources	203
2017	South Canyon (Coal Pit Wash)	Bureau of Land Management	4073
TOTAL			61,951