Antelope & North Spring Valleys, Steptoe Valley & Uplands, Newark Valley Extended Watershed, and Meadow Valley Wash & Uplands Conservation Area Assessment Executive Summary

by
Louis Provencher[1], Jan Nachlinger, & Tara Forbis, The Nature Conservancy of Nevada
&
William Morrill, Eastern Nevada Landscape Coalition
April 2003

Egan Range from Steptoe Valley salt desert shrubland near Steptoe Ranch
Photo: Louis Provencher, TNC, 2002

[1]Recommended citation: Provencher, L., J. Nachlinger, T. Forbis, and W. M. Morrill. 2003. Antelope and North Spring Valleys, Steptoe Valley and Uplands, Newark Valley Extended Watershed, and Meadow Valley Wash and Uplands conservation area assessment executive summary. Final draft. The Nature Conservancy of Nevada, Reno, NV.

Abstract

The Nature Conservancy of Nevada hosted a series of conservation area assessment workshops for Antelope and North Spring Valleys, Steptoe Valley and Uplands, Newark Valley Extended Watershed, and Meadow Valley Wash and Uplands from September 2002 to February 2003 in Ely, Nevada. Approximately 40 experts representing federal and state agencies, non-governmental conservation organizations, tribal governments, ranchers, citizens, academia, and state extension services, comprised multi-partner teams of 7-12 experts assigned to each area. The four areas total approximately 3 million acres (1,214,574 ha). The assessment followed The Nature Conservancy's 5-S methodology that encourages experts to identify **systems** (conservation targets), **stresses** to the systems, **sources** of those stresses, **strategies** to abate high-ranked sources of stress, and measures of **success**. High priority systems and species, both those that are particularly rare and those that are particularly threatened, were identified. The teams developed common strategies for five systems that share the same ecological characteristics and sources of stress across all four sites: sagebrush-grass-pinyon-juniper mosaic, "historic" pinyon-juniper ecological sites, montane woodlands, springs and creeks, and salt desert shrublands. At all four sites, teams independently identified the following critical sources of stress: fire suppression, grazing management of wild horses, non-native invasive species, construction of ditches and drainage systems, climate change, grazing management of livestock, elk use (no elk in Newark Valley), and recreational vehicle use. Multi-site strategies included using targeted fuels reduction in dense pinyon-juniper stands, aspen stands, and around springs, addressing policy barriers to the use of prescribed fire, fostering a native seed industry, improving NEPA documentation, strategically targeting control of invasive species, faithfully implementing grazing management plans for livestock, wild horses, and elk, and managing springs and outflow creeks to reduce mechanical damage by livestock, wild horse, elk, and recreational users. In addition, each team developed strategies to abate sources of stress affecting local area systems. Implementation of the strategies will require both internal efforts from the Bureau of Land Management and the United States Forest Service and help from non-governmental organizations, especially members of the Eastern Nevada Landscape Coalition. It is hoped that this document will help guide future management of the biologically rich lands of the Great Basin and Mojave Desert in eastern Nevada.

Contents

ABSTRACT 2
CONTENTS 3
1. THE EFROYMSON PROCESS 4
2. THE FOUR ASSESSMENT AREAS 7
2.1. Antelope *7*
2.2. Steptoe Valley *10*
2.3. Newark Valley *12*
2.4. Meadow Valley Wash *15*
3. THE 5-S METHODOLOGY 22
3.1. Conservation Targets *22*
3.2. Viability of Focal Conservation Targets *23*
3.3. Stresses and Sources of Stress *24*
4. VIABILITY AND SOURCES OF STRESS FOR MULTI-SITE FOCAL CONSERVATION TARGETS 25
4.1. Sagebrush-Grass-Pinyon-Juniper Mosaic *26*
4.2. "Historic" Pinyon-Juniper Ecological Sites *31*
4.3. Montane Woodlands *33*
4.4. Springs and Creeks *36*
4.5. Salt Desert Shrublands *39*
5. VIABILITY AND SOURCES OF STRESS FOR LOCAL CONSERVATION TARGETS IN ANTELOPE 40
5.1. Aspen Stands *40*
5.2. Riparian and Wetlands *44*
5.3 Badlands *45*
6. VIABILITY AND SOURCES OF STRESS FOR LOCAL CONSERVATION TARGETS IN STEPTOE 48
6.1. Alpine *48*
6.2. Badlands and Pygmy Sagebrush Community *50*
6.3. Valley Springs, Marshes, and Streams *51*
6.4. Caves and Mine Habitats *54*
7. VIABILITY AND SOURCES OF STRESS FOR LOCAL CONSERVATION TARGETS IN NEWARK 55
7.1. Montane Sagebrush Mosaics *55*
7.2. Winterfat Communities *57*
7.3. Bats *58*
8. VIABILITY AND SOURCES OF STRESS FOR LOCAL CONSERVATION TARGETS IN MEADOW VALLEY 59
8.1. Higher Elevation Riparian Corridors *59*
8.2. Lower Elevation Riparian Corridors *61*
8.3. Chaparral-Ponderosa Pine-Pinyon-Juniper Woodland *64*
8.4. Badlands *65*
8.5. Creosote Bush-Bursage-Blackbrush *66*
9. CONSERVATION STRATEGIES 68
9.1. Multi-site Conservation Targets and Strategies *68*
9.2. Local Conservation Targets and Strategies for Antelope *72*
9.3. Local Conservation Targets and Strategies for Steptoe *72*
9.4. Local Conservation Targets and Strategies for Newark *74*
9.5. Local Conservation Targets and Strategies for Meadow Valley Wash *75*
10. MEASURES OF SUCCESS 77
11. LITERATURE CITED 78
APPENDIX: NESTED CONSERVATION TARGETS (PLANT COMMUNITIES, HABITATS, SPECIES, AND ASSEMBLAGES) BY CONSERVATION AREA 80
1. Antelope *80*
2. Steptoe Valley *81*
3. Newark Valley *83*
4. Meadow Valley Wash *84*

1. The Efroymson Process

Efroymson workshops were designed to involve conservation partners in The Nature Conservancy's (TNC) initial site assessments to develop effective strategies for conserving functional landscapes. The participatory process elicited and produced clear conservation goals, obstacles to goals, strategies for success, and draft implementation steps. This method is the product of over 20 years of experimentation, innovation, and thought by TNC staff at many landscapes. This Efroymson workshop series consisted of four teams, each one focused at a separate conservation area. Greg Low of TNC was the moderator for the workshops. Each team involved six to twelve individuals who brought a breadth and depth of knowledge about the conservation needs and opportunities at a site. Participants from each site followed assessment exercises and entered key information into a specially-programmed spreadsheet. The user-friendly spreadsheets have been developed and tested extensively over the past years for use in conservation area planning and measures. Teams worked concurrently, and periodically gathered to present their plans to the whole group (~40 people total). The larger group reviewed and critiqued each team's product, which resulted in improved outcomes.

Efroymson workshop participants in the burned and reseeded pinyon-juniper expansion area of the Robinson Pass wildfire in the Egan Range
Photo: Greg Low, The Nature Conservancy, 2002

Assessment areas were chosen as a compromise between TNC's identification of ecologically important sites in the Great Basin and Mojave Desert ecoregional plans (TNC 2000; Nachlinger et al. 2001) and Bureau of Land Management's (BLM) need to analyze watersheds. Also,