



# Nevada SEC Meeting

## Preliminary Credit System Scenario Analysis Findings

June 23, 2014

# Today's Objectives

- 1) Gain understanding of preliminary scenario analysis findings, including those relevant to FWS comments and recent disturbance cap discussions
- 2) Gain familiarity with white paper under development
- 3) Set expectations for July SEC meeting



February (End of Phase 1)	March - June	July	Aug - Sept (End of Phase 2)
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**HQT**

Draft  
HQT  
Methods

Flush out concepts & build tools

Full package  
of HQT  
products

**Analysis  
& Review**

Field testing

Transaction & financial analysis

Case  
Study

Revise  
Mitigation  
Ratios

**Manual  
& Forms**

Draft  
Manual

Flush out concepts & build forms

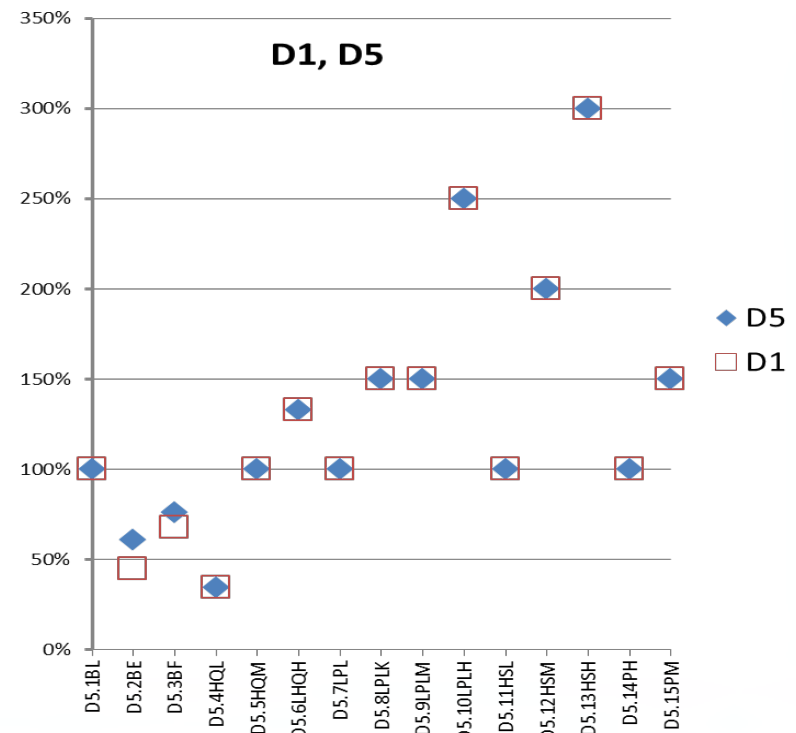
Full package  
of Manual  
products

# Scenario Analysis Update

**Goal:** Analyze range of scenarios using real field sites in order to thoroughly understand and improve the HQT and Manual

## Status:

- 1,700+ scenarios
- Findings
- Potential solutions



# White Paper Overview

**Purpose:** Facilitate inclusion of Credit System in the GrSG Sub-Regional Planning Strategy/EIS

**Thesis:** To ensure the viability of the greater sage-grouse (GrSG), conservation planning and regulation must:

- Account for habitat quality
- Account for both direct and indirect effects
- Require full mitigation

**Audience:** Decision-makers and natural resource managers with GrSG and mitigation experience

**Timeline:** Final needed next week

# White Paper Briefing Content

**Framing:** A framework for

- a) full mitigation
- b) targeting conservation investments
- c) reporting all changes to GrSG habitat

**Outline:**

- Policy context & summary of threats
- Credit System overview
- Questions & Answers

# Example Credit System Overview Section

## **Durable Mitigation**

- Land protection instrument
- Reserve account
- Contract life
- Financial assurances

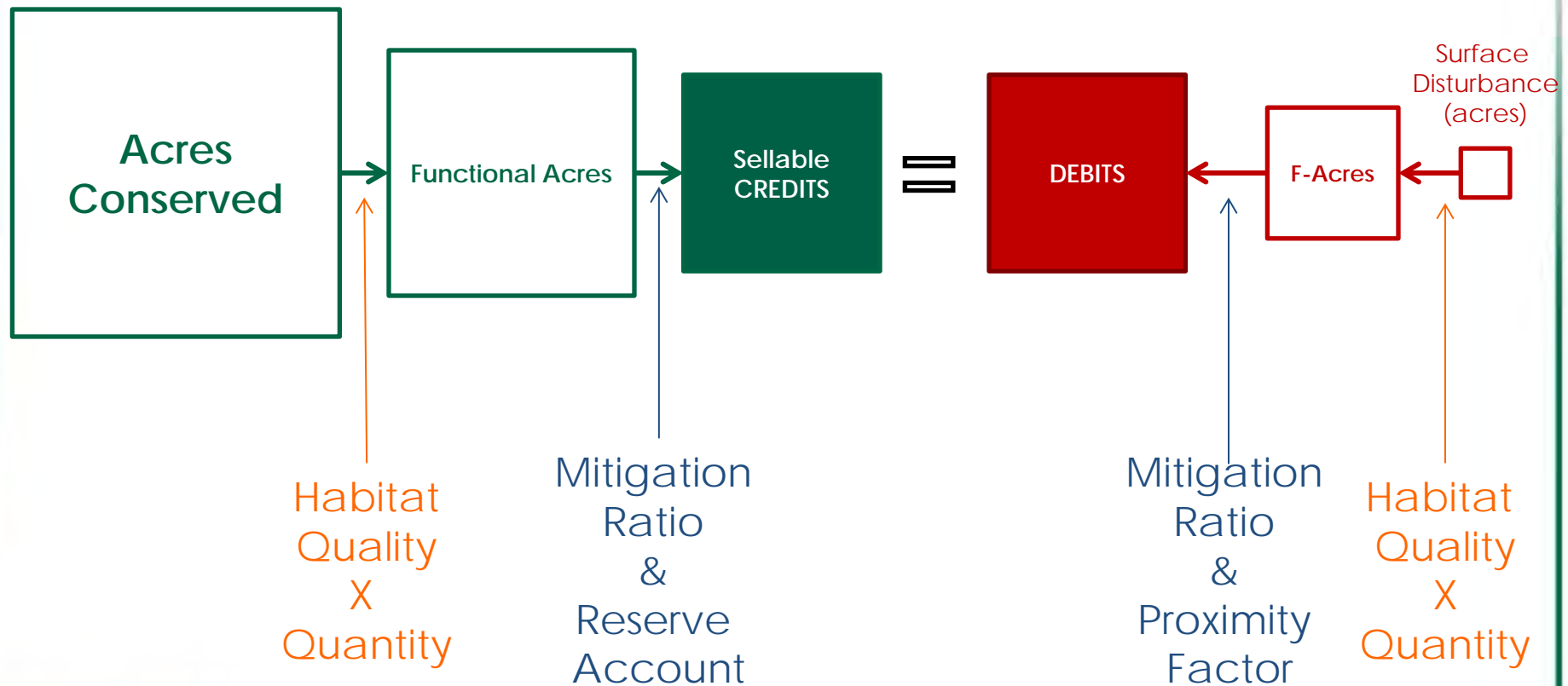
# USFWS Comments

- "...Nevada's plan does not recognize need to avoid the loss of good, occupied GrSG habitat..."
- "...on BLM lands it is important that actions are not permitted that would result in loss of good, occupied GrSG habitat..."



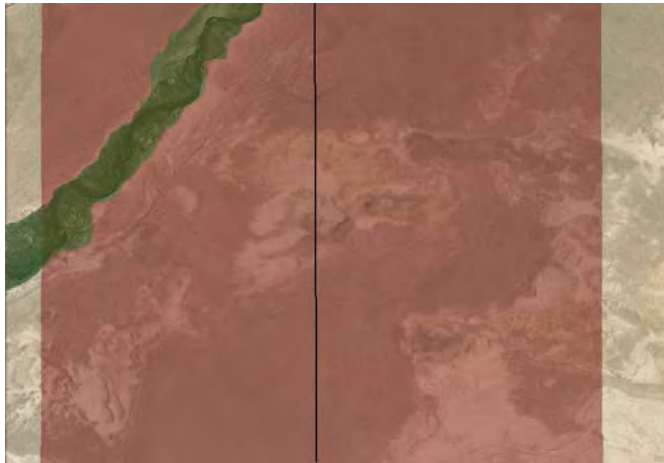
# Credit to Debit Relationship

Box sizes only illustrate direction of change, they are NOT to scale

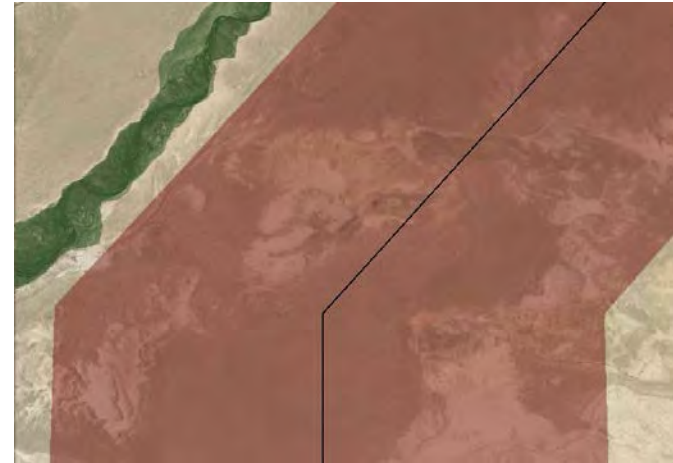


# Credit System uses significant cost drivers to support avoidance and minimization

- 6 mi. improved gravel road in Priority habitat
- 400 acres of limited late brood-rearing habitat and adjacent high quality habitat
- Project 1 generates approximately 50% more debits



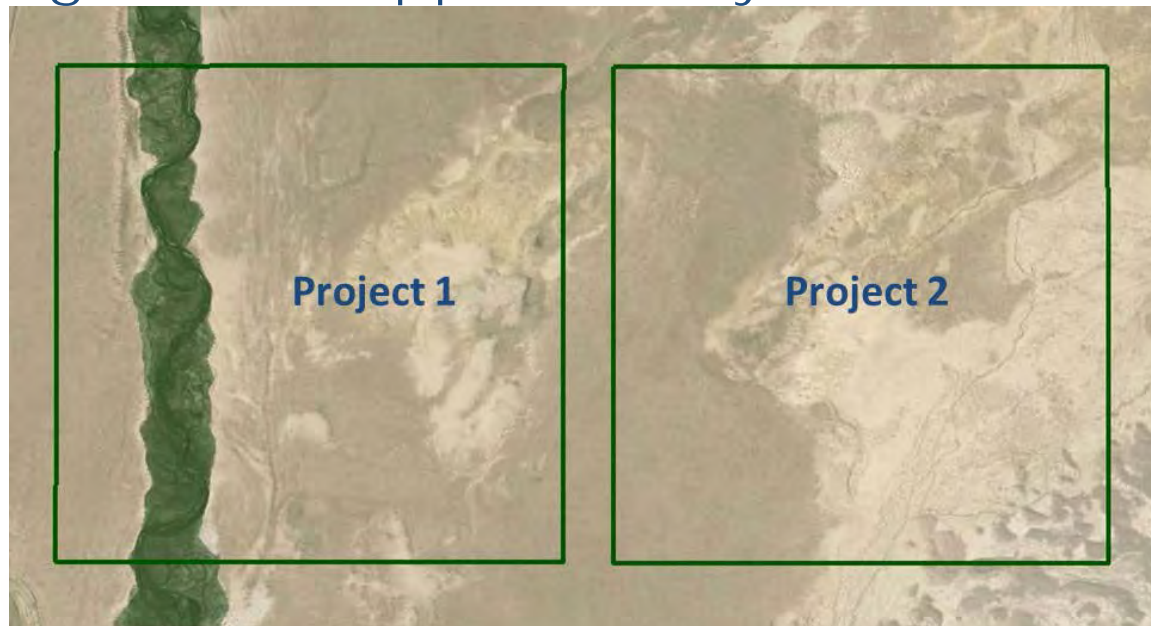
Project 1



Project 2

# Credit System uses significant revenue drivers to enhance and protect the “best of the best” habitat

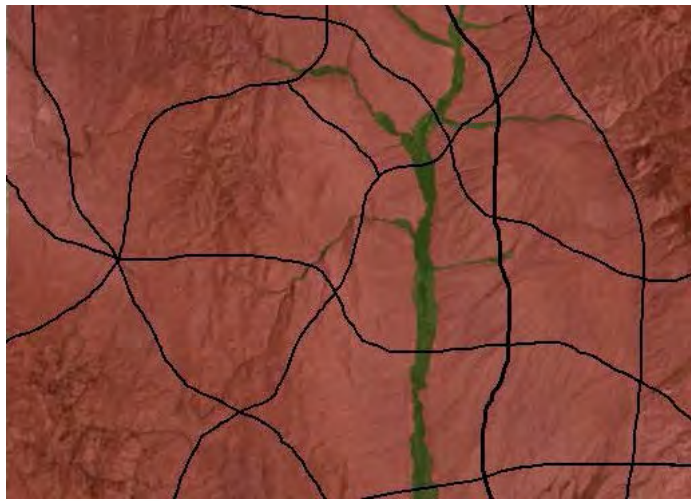
- Enhancement and protection of 2,000 acres in Core habitat
- 40 acres of limited late brood-rearing habitat and adjacent high quality habitat
- Project 1 generates approximately 150% more credits



# Surface Disturbance Caps Illustrated

3% surface-disturbance cap could result in either

- Total loss of functional habitat, including limited late brood-rearing habitat due to fragmentation from a dense network of roads, see Project 1
- Moderate loss of functional habitat from a mine sited to avoid impact to limited late brood-rearing habitat, see Project 2
- Both project scenarios result in 3% surface disturbance



Project 1

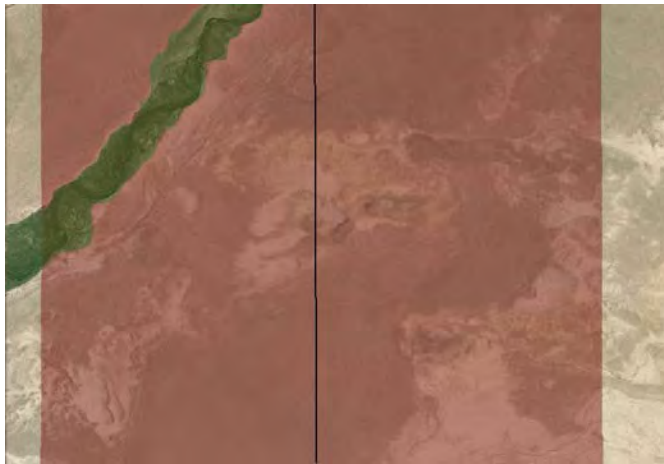


Project 2

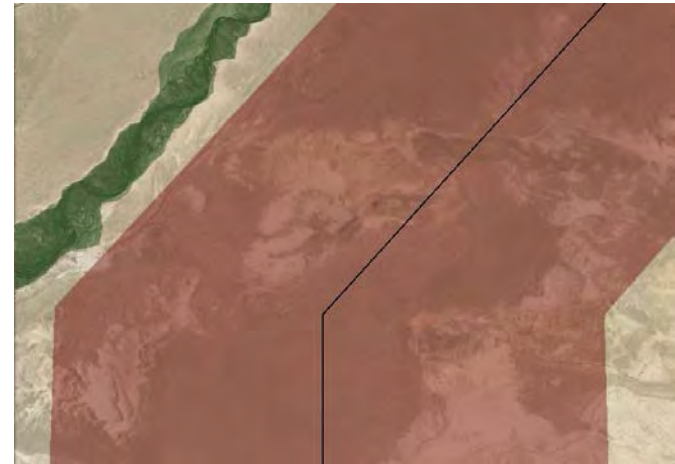
# Surface-disturbance based mitigation ratios can result in significant net loss in function

4:1 surface-disturbance mitigation ratio would result in

- Approx. 85% net loss in habitat function for Project 1
- Approx. same net gain in habitat function for Project 2



Project 1



Project 2

# Disturbance Caps & Surface-Disturbance Mitigation Ratios do not address USFWS comments

Disturbance caps and surface-disturbance based mitigation ratios allow for

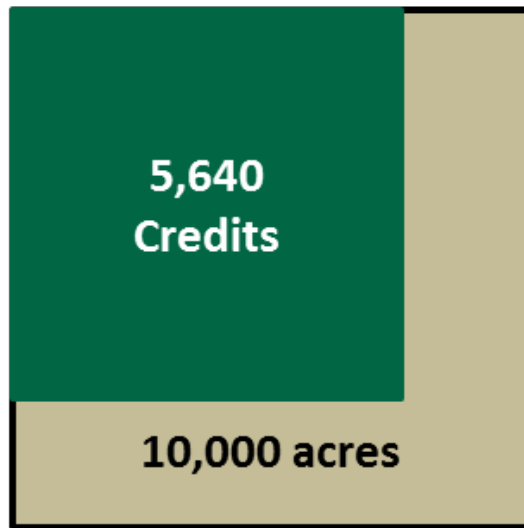
- Increased habitat fragmentation
- Significant net functional habitat loss
- Impacts to scarce seasonal habitat

# Preliminary Scenario Analysis Findings

- 1) Credit regional baseline significantly influences credit generation
- 2) Existing anthropogenic disturbances influence credit generation, and incentivize infill/cluster development
- 3) Habitat quality and mitigation ratio factors incentivize credit projects in desired locations
- 4) Indirect disturbance area for debit projects significantly effects credit obligations
- 5) Credit system provides significant habitat function improvement and surface disturbance caps allow significant net loss in habitat function

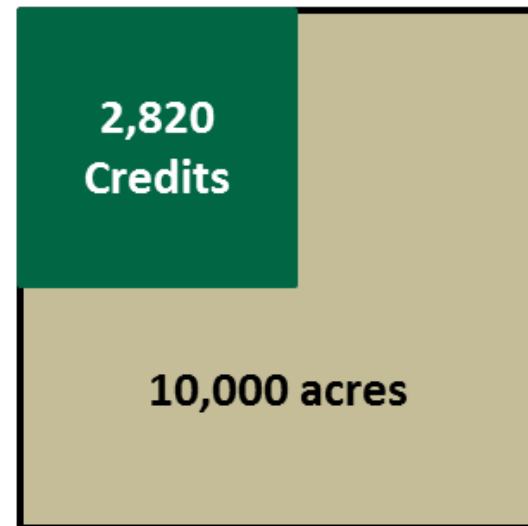
# Baseline Matters

**Baseline = 20%**



**10,000 acres**

**Baseline = 50%**

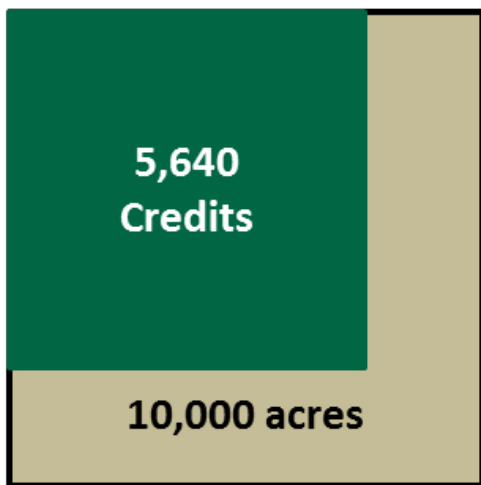


**10,000 acres**



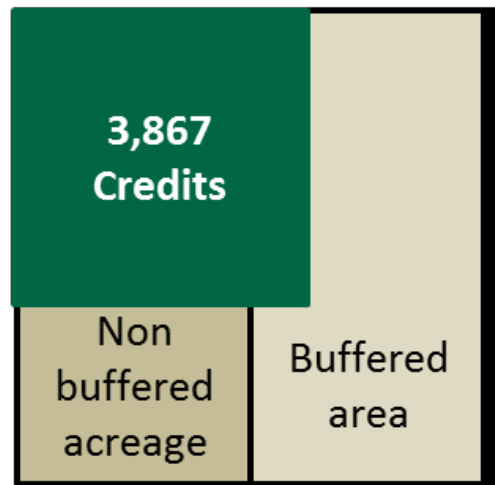
# Existing Anthropogenic Disturbances Effect Credits and Debits Generated

## No Existing Anthropogenic Disturbance



10,000 acres

## Existing Anthropogenic Disturbance



10,000 acres

# July SEC Meeting

**Goal:** Determine near-final mitigation ratios

**Content:** Proposed mitigation ratio values and supporting rationale will be provided based on scenario analysis