Lower-Middle Yellowstone Mitigation Banking Umbrella Agreement

Prospectus



Prepared for

United States Army Corps of Engineers, et al.

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Executive Summary

Project Name	Lower-Middle Yellowstone Umbrella Agreement (LMYUA)
Area Description	This proposed stream and wetland mitigation banking Umbrella Agreement will initially consist of three Bank Sites located within Treasure, Rosebud and Carter Counties. The combined Bank Sites contain over 545 acres of aquatic and terrestrial habitat. The Umbrella Agreement will establish sites within a number of ecoregion types including the Great Plains Dry Steppe Province, characterized by grasslands with scattered trees and shrubs, as well as the Southern and Middle Rocky Mountain Steppe Provinces where local vegetation zones are controlled by a combination of altitude, latitude, prevailing winds, and slope exposure (Bailey, 1995). Bank Sites will also occur within the Intermountain Semidesert Province which features sagebrush mixed with short grasses and greasewood in abundance on moist, alkaline soils.
	Omernik's ecoregion types describe the majority of the area to be within the Northwestern Great Plains, with open hills of varying height and tablelands of moderate relief (Omernik, 1987). The remainder of the Umbrella Agreement coverage area lies within three other ecoregions: the Middle Rocky Mountains, the Wyoming Basin, and the Montana Valley and Foothill Prairies. The Middle Rocky Mountains ecoregion features high mountains covered by Douglas fir, western spruce-fir forests, and alpine meadows, while the Wyoming Basin has plains with hills or low mountains, some irrigated agriculture, and potential natural vegetation is shrub steppe, desert shrubland, and juniper-pinyon woodland. The remainder of the Yellowstone River Basin (YRB) lies in the Montana Valley and Foothill Prairies ecoregion, characterized as subhumid grassland used for grazing, and some irrigated land.
	The wetland and riparian habitats on these sites are diverse, geographically widespread, and vitally important to wildlife in the region. The NWI types include PEM, PSS and PFO as well as riverine wetlands; there are also non-wetland riparian zones adjacent to rivers, and mesic and upland areas adjacent to wetlands which are incorporated as buffers/inclusions for crediting.

Agreement Sponsor	Yellowstone Mitigation, LLC 21 N. Last Chance Gulch, Suite 202 Helena, MT 59601
Land Owners	Ringling Ranch (Ringling Ranch LTD Partnership) PO Box 1029 Miles City, MT 59301 Cole Ranch (Cole Norris E, Inc.) 7 Cole Lane Forsyth, MT 59327 Waage-Schwarzkoph Property (William Schwarzkoph) PO Box 482 Forsyth, MT 59327
Sponsor's Agent	David Patrick Eco-Asset Management, LLC 21 N. Last Chance Gulch, Suite 202 Helena, MT 59601 <u>dpatrick@eco-asset.com</u> Phone: 406.422.5209 Fax: 888.470.2824
Project Summary	Yellowstone Mitigation, LLC proposes development of several stream and wetland mitigation bank sites under the Lower-Middle Yellowstone Umbrella Agreement (LMYUA). The Bank Sites include wetlands (PEM, PSS and PFO), stream and riparian resources at three initial locations in Treasure, Rosebud and Carter Counties, Montana. The purpose of the LMYUA is to provide compensatory mitigation for unavoidable adverse impacts to wetlands and aquatic habitats that may occur in the Primary Geographic Service Areas (GSA) of each of the Bank Sites as described herein, and throughout the Secondary GSA of the Bank Sites, established as the combined Middle Yellowstone Major Basin (MDT District 14, including 8-digit HUCs 10070007 and 10070008; 10080010, 10080014, 10080015, 10080016; 10090101 and 10090102; and 10100001, 10100002, and 10100003) and Lower Yellowstone Major Basin (MDT District 15, including HUCs 10090207 – 10090210; and 10100004 and 10100005).

The overall objectives of the Agreement and its initial Bank Sites are to provide stream and wetland credits produced from the restoration and protection of the following resources:

Cole Ranch – restoration, through Russian olive and saltcedar control, and vegetation community improvements such as native grass and shrub plantings, of 130 acres of riparian habitat along 7,320 linear feet of the south bank of the Yellowstone River, generating 18,794 stream credits (no wetland credits proposed);

Waage-Schwarzkoph Property – restoration, through Russian olive and saltcedar control, and vegetation community improvements such as native grass and shrub plantings, of 100 acres of riparian habitat along 8,820 linear feet of the north bank of the Yellowstone River, generating 22,645 stream credits; AND further restoration, through Russian olive and saltcedar control, and vegetation community improvements such as native grass and shrub plantings, of 58 acres of wetland habitat located on the Yellowstone River, generating 23.08 wetland credits;

Ringling Ranch – restoration and protection of 257 acres, through channel geomorphology improvements, levee removal, vegetation community improvements (such as native grass and shrub plantings) and eliminated grazing of 30,607 linear feet of O'Fallon Creek, and an associated 600-foot total riparian buffer, generating 149,515 stream credits; AND restoration of 5.6 acres of prairie wetlands and 32.6 acres of upland buffers and inclusions along O'Fallon Creek, generating 5.26 wetland credits.

The underlying real estate for all Bank Sites will be protected via a special condition of the 404 permit authorization issued for restoration and enhancement efforts at each Bank Site. Financial assurances which guarantee success of each Bank Site will be established commensurate with the risk (both financial and ecological) associated with the Bank Site development strategy. In cases of low risk strategy, no financial assurance will be provided (such as nuisance species control). Bank Sites will be managed by the landowner, Montana Land Reliance, or other third-party long-term manager acceptable to the Corps, in consultation with the IRT, thus ensuring appropriate management of the land in perpetuity.

Bank Site Location and Ownership

Project Description

Yellowstone Mitigation, LLC proposes development of an Umbrella Agreement to establish Bank Sites throughout the Lower and Middle Yellowstone Major Basins. Three initial Bank Sites are proposed, two along the Yellowstone River and one in the upper reaches of O'Fallon Creek. The Agreement will be referred to as the Lower-Middle Yellowstone Umbrella Agreement (LMYUA), and the three initial Bank Sites will be located on properties owned by the Cole Family (east of Hysham in Treasure County); Mr. Waage and Mr. Schwarzkoph (east of Forsyth in Rosebud County); and the Ringling Family (northwest of Ekalaka in Carter County), all in Montana. The purpose of the LMYUA and its Bank Sites is to provide compensatory mitigation for unavoidable adverse impacts to wetlands and aquatic habitats that may occur in the major watershed basins (Middle Yellowstone – Watershed District 14, and Lower Yellowstone – Watershed District 15). Each Bank Site will have a specific primary Geographic Service Area (GSA) prescribed within these two Major Basins, while the combined Major Basins will serve as the Secondary GSA for all Bank Sites.

The overall objectives of the Agreement and its initial Bank Sites are to provide stream and wetland credits produced from the restoration and protection of the following resources:

Cole Ranch – restoration, through Russian olive and saltcedar control, and vegetation community improvements such as native grass and shrub plantings, of 130 acres of riparian habitat along 7,320 linear feet of the south bank of the Yellowstone River, generating 18,794 stream credits (no wetland credits proposed);

Waage-Schwarzkoph Property – restoration, through Russian olive and saltcedar control, and vegetation community improvements such as native grass and shrub plantings, of 100 acres of riparian habitat along 8,820 linear feet of the north bank of the Yellowstone River, generating 22,645 stream credits; AND further restoration, through Russian olive and saltcedar control, and vegetation community improvements such as native grass and shrub plantings, of 58 acres of wetland habitat located in the Yellowstone River, generating 23.08 wetland credits;

Ringling Ranch – restoration and protection of 257 acres, through channel geomorphology improvements, levee removal, vegetation community improvements (such as native grass and shrub plantings) and eliminated grazing of 30,607 linear feet of O'Fallon Creek, and an associated 600-foot total riparian buffer, generating 149,515 stream credits; AND restoration of 5.6 acres of prairie wetlands and 32.6 acres of upland buffers and inclusions along O'Fallon Creek, generating 5.26 wetland credits

Bank Sites will be monitored for a minimum of five years to gauge progress toward meeting various performance standards, and remedial and adaptive management actions will be taken to ensure the success of all Bank Sites. Bank Sites will be protected in perpetuity by special

conditions of the 404 permits issued for the restoration work, and will be managed long-term by an IRT-approved entity, thus ensuring the perpetuation of habitat values in perpetuity.

Location

The Bank Sites are located in Treasure, Rosebud and Carter Counties (Figure 1). The geographic location of each Bank Site is as follows: Cole Ranch – Township 6N, Range 38E, Section 6 and Township 6N, Range 37E, Section 1; Waage-Schwarzkoph Ranch – Township 6N, Range 42E, Section 7; and Ringling Ranch – Township 4N, Range 56E, Sections 29 and 32, and Township 3N, Range 56E, Section 5.

The Bank Sites are located in the Yellowstone River Basin (YRB), which lies in the dry climate domain, a sub-continental region of broad climatic similarity. Within the dry domain, several divisions are defined by vegetation differences corresponding to the levels of water deficit and winter temperatures (Bailey, 1995). Two of these divisions occur in the YRB. Eighty-two percent of the area is classified as temperate steppes, areas having shortgrass prairie or semidesert vegetation that is generally sparse, leaving much exposed soil (Bailey, 1995). Bailey maps the remainder of the YRB as temperate deserts, where vegetation is typically semidesert shrubs such as sagebrush. On a modified map of Omernik's (1987) ecoregions, 55 percent of the study unit lies within the Northwestern Great Plains. This ecoregion has plains with open hills of varying height and tablelands of moderate relief; and predominant land cover is subhumid grasses used for grazing (Omernik, 1987). Twenty-one percent of the YRB lies in each of two other ecoregions, the Middle Rocky Mountains and the Wyoming Basin. The Middle Rocky Mountains ecoregion features high mountains covered by Douglas fir, western spruce-fir forests, and alpine meadows (Omernik, 1987); land use includes grazing and silviculture. The Wyoming Basin has plains with hills or low mountains, some irrigated agriculture, and potential natural vegetation is shrub steppe, desert shrubland, and juniper-pinvon woodland (Omernik, 1987). The remainder of the YRB lies in the Montana Valley and Foothill Prairies ecoregion, characterized as subhumid grassland used for grazing, and some irrigated land (Omernik, 1987). See Figure 2 below for an illustration of the Bank Site's landscape positions.

Property Legal Description and Ownership

As noted above, the three initial Bank Sites are located throughout the Yellowstone River Basin, including along the Yellowstone River as well as in the headwaters of O'Fallon Creek, a major tributary of the Yellowstone River. The sites are separately and individually owned as follows:

The Cole Ranch Bank Site is located on the Yellowstone River east of Hysham, (Figure 3) and encompasses 130 acres of land in the riparian zone at the northern edge of the ranch. This Bank Site is owned by the Cole Family d/b/a Cole Norris E Inc. which has executed an agreement to grant license to the Sponsor to establish a Bank Site on the property and to further encumber the property as required by the final Mitigation Bank Instrument;

The Waage-Schwarzkoph Bank Site is located on the Yellowstone River east of Forsyth, (Figure 4) and encompasses 158 acres of land in the riparian zone at the southern edge of the property. This Bank Site is owned by Bruce Waage and Bill Schwarzkoph, both of whom have executed an agreement to grant license to the Sponsor to establish a Bank Site on the property and to further encumber the property as required by the final Mitigation Bank Instrument.

The Ringling Ranch Bank Site is located on O'Fallon Creek northwest of Ekalaka, (Figure 5) and encompasses 257 acres of land located in the riparian zone of the creek in the eastern portion of the ranch. This Bank Site is owned by the Ringling Ranch Limited Partnership, which is also the majority owner of the Umbrella Agreement Sponsor, Yellowstone Mitigation, LLC.

Summary information about the specific ownership of each parcel can be found in Exhibit 1.

Sponsor's Qualifications

The Bank Sponsor is uniquely qualified to establish and operate this Umbrella Agreement and its component mitigation Bank Sites by virtue of its ownership and financial resources. Yellowstone Mitigation, LLC is owned in part by Ringling Ranch Limited Partnership via its investment vehicle Ringling Consolidated, LLC (whose members include Rock Ringling), and in part by Eco-Asset Management (whose members include David Patrick). David Patrick has developed the only approved and active wetland/stream mitigation banks in Montana, while Rock Ringling, who is a general partner and Managing Director of the Montana Land Reliance, has extensive experience with landscape-scale conservation initiatives throughout the Inter-Mountain West.

Point of contact for the Sponsor is Rock Ringling. The Sponsor has assigned as its agent David Patrick of Eco-Asset Management, LLC.



Figure 1. Lower-Middle Yellowstone Umbrella Agreement – Bank Site locations

Figure 2. Aerial photographs of Bank Sites



Figure 3. Cole Bank Site



Figure 4. Waage Bank Site



Figure 5. Ringling Bank Site



Bank Goals and Objectives

Purpose and Objectives

The purpose of the LMYUA is to provide a vehicle for the establishment of several commercial, multiple-user mitigation Bank Sites throughout the Lower and Middle Yellowstone Major Watershed Basins. The "Mitigation Bank Instrument" (MBI) will establish guidelines and responsibilities for the establishment, use, operation, and maintenance of the Bank Sites as prescribed in 33 CFR 332 (the "Federal Rule"). In general, the Bank Sites will be used for compensatory mitigation for unavoidable impacts to waters of the United States, including wetlands and streams, that result from activities authorized under Section 404 of the Clean Water Act (the "CWA"), Section 10 of the Rivers and Harbors Act, and Section 75-5-401 of the Code of Montana, provided such activities have met all applicable requirements and are authorized by the appropriate authority(ies).

Objectives for the LMYUA and each component Bank Site include the preservation of ecologically important streams and wetland habitat, restoration and enhancement of existing streams and wetlands in cases where degradation has occurred, enhancement and protection of surrounding and integrated uplands, and creation of wetlands in areas where they can be naturally maintained.

General Need for the Umbrella Agreement and Mitigation Bank Sites

Compensatory mitigation involves actions taken to offset unavoidable adverse impacts to wetlands, streams and other aquatic resources authorized by Clean Water Act Section 404 permits and other Department of the Army (DA) permits. As such, compensatory mitigation is a critical tool in helping the federal government to meet the longstanding national goal of "no net loss" of wetland function. For impacts authorized under Section 404, compensatory mitigation is not considered until after all appropriate and practicable steps have been taken to first avoid and then minimize adverse impacts to the aquatic ecosystem (i.e. the CWA Section 404(b)(1) Guidelines).

Increasing development pressure within the GSA is affecting important stream and riparian corridors and wetlands. Currently there are no mitigation bank credit options for mitigating impacts to streams, riparian corridors and wetland habitats in these regions. The establishment of several mitigation Bank Sites with diverse credits, use of which is the stated preference for mitigation (33 CFR 332), is needed to compensate for unavoidable impacts which result from development throughout the GSA.

Proposed Geographic Service Areas

A separate Primary GSA is proposed for each of the three initial Bank Sites included under the Agreement; these are further defined below. The combined Lower and Middle Yellowstone Major Watershed Basins are proposed as the Secondary GSA for all Bank Sites under the

Agreement. The Secondary GSA of the Bank Sites include the combined **Middle Yellowstone Major Basin** (MDT District 14, including 8-digit HUCs 10070007 and 10070008; 10080010, 10080014, 10080015, 10080016; 10090101 and 10090102; and 10100001, 10100002, and 10100003) and **Lower Yellowstone Major Basin** (MDT District 15, including HUCs 10090207 – 10090210; and 10100004 and 10100005). The rationale for this is based on the similarity of habitats within the ecoregions covered by the Umbrella Agreement, which occur within the Great Plains Dry Steppe Province (Bailey 1995) and the Northwestern Great Plains zone (Omerlink 1987, Figure 6).

<u>Cole Ranch Bank Site</u>. The Primary GSA for this Bank Site is proposed to be the Yellowstone River, from Billings (the western edge of the Middle Yellowstone Major Basin) to the North Dakota State Line (the eastern border of the Lower Yellowstone Major Basin), as well as the Bighorn River within the State of Montana. The GSA will also include and be bounded by a line five miles from the outer edge of the channel migration zone (CMZ) as mapped in Thatcher and Boyd, "Yellowstone River Channel Migration Zone Mapping – Final Report" (February 2009) and related maps, as well as five miles from the apparent CMZ of the Bighorn River in Montana. The reasoning behind this GSA is that Bank Sites which occur on the river will have highly similar characteristics for the designated reaches of these rivers, as well as upstream on tributaries to these rivers within those same reaches. An arbitrary but well defined boundary of five miles is included within this GSA due to the influence of these rivers out to this distance as well as similarity of riparian habitats (Figure 7).

<u>Waage-Schwarzkoph Bank Site</u>. The Primary GSA for this Bank Site would be the same as that for the Cole Ranch, and for the same reasons (Figure 7).

<u>Ringling Ranch Bank Site</u>. The Primary GSA for this Bank Site is proposed to be all nonriverine areas (i.e. all areas outside of the Primary GSAs of the river sites) of the Lower and Middle Yellowstone Major Basins (Figure 8). The Great Plains Dry Steppe / Northwestern Great Plains province, excluding the major river bottoms, are quite similar in the prairie setting of sparse shortgrass and semi-desert vegetation, including shrubs such as sagebrush and greasewood. Aquatic resources outside of the river bottoms are often ephemeral to intermittent prairie streams, springs, pothole/transitional wetlands or smaller streams (like O'Fallon Creek) that tend to have limited available precipitation, and high peak discharges during those precipitation events. Such streams and wetlands are present on the Ringling Ranch and offer an appropriate form of compensatory mitigation for the proposed Primary GSA.

Any aquatic resource impacts which occur within the described service areas, subject to Corps approval, in consultation with the IRT, will be eligible for credit withdrawal from the Bank.





Figure 7 – Primary GSA for Cole Ranch and Waage-Schwarzkoph Property Bank Sites (light blue area)



(inset example CMZ+5 miles either side of CMZ)



Figure 8 – Primary GSA for Ringling Ranch Bank Site (white area is excluded)

Proposed Number and Types of Credits

Methods

Methods for calculating stream and wetland credits will be as follows:

- Streams The current (at the time of Bank Site approval) Montana Stream Mitigation Procedure (MT SMP) will be used to calculate credits which result from the preservation, enhancement and restoration of stream and riparian resources under the Agreement.
- Wetlands Montana Department of Transportation's (MDT's) Montana Wetland Assessment Method (MWAM) (2008) will be used to calculate credits which result from the restoration/rehabilitation of jurisdictional wetland areas in the Bank. In addition, the Omaha District mitigation guidance will be used to calculate wetland credits generated by (1) the preservation of wetlands; and (2) the preservation and restoration/rehabilitation and management of upland buffers and inclusions.

Stream and Riparian Credits

Previous management of all of the Bank Sites has included intense livestock grazing along and throughout most stream, riparian and wetland areas. These areas will be excluded from grazing in perpetuity except as provided for in the long-term management plan for each Bank Site.

The stream reaches included in the Bank will be managed for high "Sustainable" factors as defined in the NRCS Riparian Assessment Method, to include livestock exclusion, bank and near bank planting with stabilizing vegetation as needed, and improvement of fish passage when appropriate through reach improvement methods outlined in this Prospectus. Stream side riparian zones will be enhanced through supplemental planting of high quality native vegetation and, in the cases of converting agricultural fields to riparian habitat, full restoration of the vegetation community including all classes of native vegetation. Finally, extensive invasion of nuisance species (Russian olive, saltcedar) is prevalent in some of the Bank Sites, and will be removed and controlled as part of the restoration efforts.

<u>Cole Ranch Bank Site</u>. Under the May 2010 MT SMP, the enhancement, improved management and protection of approximately 7,320 linear feet of the Yellowstone River's south bank will yield 12,151 credits; while the restoration, enhancement and protection of the adjacent 300-ft riparian buffer will yield 6,643 credits, for a total of 18,794 credits (Table 1 and Exhibit 2).

<u>Waage-Schwarzkoph Bank Site</u>. Under the May 2010 MT SMP, the enhancement, improved management and protection of approximately 8,820 linear feet of the Yellowstone River's north bank will yield 14,641 credits; while the restoration, enhancement and protection of the adjacent 300-ft riparian buffer will yield 8,004 credits, for a total of 22,645 credits (Table 1 and Exhibit 2).

<u>Ringling Ranch Bank Site</u>. Under the May 2010 MT SMP, the enhancement, improved management and protection of approximately 30,607 linear feet of O'Fallon Creek will yield 69,172 credits; while the restoration, enhancement and protection of the adjacent riparian buffer, varying in width on each side of the stream from 75 feet to 525 feet (600 feet total

riparian corridor width), will yield 80,343 credits, for a total of 149,515 credits (Table 1 and Exhibit 2).

Wetland Credits

Wetland credits will be generated through rehabilitation and management of existing degraded jurisdictional wetlands on the Waage-Schwarzkoph property and the Ringling Ranch; no wetland credits are proposed from the Cole Ranch.

<u>Waage-Schwarzkoph Bank Site</u>. Under the MDT's MWAM (2008), 57.7 acres of forested and scrub-shrub riverine wetlands will be protected in perpetuity. In addition, livestock grazing will be prohibited in the area except as prescribed in a long-term management plan. Finally, nuisance species such as Russian olive and saltcedar will be removed from the area, and controlled over time as part of a management plan to prevent reestablishment of these species within the wetlands. Such efforts are expected to generate a modest ecological lift resulting in 23.08 wetland credits (Table 1 and Exhibit 3).

<u>Ringling Ranch Bank Site</u>. Under the MDT's MWAM (2008), wetland improvement will occur in five oxbow features, identified as AA1 through AA5, and totaling 5.59 acres (see Figure 12 below on page 32). The oxbows occur within two landscape positions observed in the Ringling Ranch assessment area: (1) temporarily flooded abandoned oxbow wetlands with perched water tables on higher elevation positions on abandoned floodplains (AA1 and AA2); and (2) hydrologically connected oxbow wetlands influenced by O'Fallon Creek hydrology (AA3 – AA5). Wetlands are described according to landscape positions and the Cowardin classification system of wetlands and deepwater habitats (Cowardin et al. 1979) in the wetland jurisdictional delineation report, which has been approved by the Corps. Palustrine emergent, unconsolidated shore and aquatic bed class wetlands were found in these five wetlands, and restoration and protection of these areas will generate 2.63 credits (Table 1 and Exhibit 3).

An additional 32.6 acres of upland buffers and inclusions which are adjacent to, and critically important to the function of, these five assessment areas are also included for wetland crediting per Omaha District guidance and Montana State Program policy. The 32.6 acres of uplands are proposed to yield 2.63 credits, a ratio of 12.5:1 (upland acres to wetland credits). This is well within the Corps' Montana State Program policy of a 5:1 ratio. The 2.63 wetland credits from these uplands are in balance with the 2.63 wetland credits generated by wetland restoration and protection, which means 50% of this Bank Site's credits will be generated by upland buffers and inclusions. This 50% share of wetland credits from uplands exceeds Montana State Program policy of 25%; however, the nature of this system (prairie wetlands and buffers with high erosion rates) and the extraordinary benefits to the adjoining wetlands of such buffers and inclusions are worthy of exception for this Bank Site.

Table 1 – Proposed credits and types

	Waterway Location	Stream	Riparian	Wetland	Upland
Streams/Riparian Buffers					
Cole Ranch	Yellowstone R - S bank	7,320	7,320		
Waage-Schwarzkoph	Yellowstone R - N bank	8,820) 8,82 0		
Ringling Ranch	O'Fallon Creek - both	30,607	7 30,607		
Wetlands/Upland Buffers					
Waage-Schwarzkoph	Yellowstone R - N bank			57.	7 0
Ringling Ranch - AA1	O'Fallon Creek			0.7	4 5.36
Ringling Ranch - AA2	O'Fallon Creek			0.5	4 2.98
Ringling Ranch - AA3	O'Fallon Creek			2.4	2 15.58
Ringling Ranch - AA4	O'Fallon Creek			0.8	3 3.27
Ringling Ranch - AA5	O'Fallon Creek			1.0	7 5.39
		46,747	7 46,747	63.	3 32.58
	CRI	EDITS			
	Waterway Location	Stream	Riparian	Wetland	Upland
Streams/Riparian Buffers					
Cole Ranch	Yellowstone R - S bank	12,151	l 6,643		
Waage-Schwarzkoph	Yellowstone R - N bank	14,641	l 8, 004		
Ringling Ranch	O'Fallon Creek	69,172	80,343		
Wetlands/Upland Buffers					
Waage-Schwarzkoph	Yellowstone R - N bank			23.0	в О
Ringling Ranch - AA1	O'Fallon Creek			0.3	5 0.35
Ringling Ranch - AA2	O'Fallon Creek			0.2	5 0.25
Ringling Ranch - AA3	O'Fallon Creek			1.1	4 1.14
Ringling Ranch - AA4	O'Fallon Creek			0.3	9 0.39
Ringling Ranch - AA5	O'Fallon Creek			0.5	0.50
		95,964	4 94,990	25.71	2 2.632
		10	1 954	25	344
		Total Stre	eam Credits	Total Wet	and Credits

AREA (Lengths and Acres)

Proposed Credit Release Schedule

It is proposed that 30% of the 28.34 total wetland credits (8.5 wetland credits) will be available immediately for assignment to permitted projects as pre-certified credits; and the remaining 70% (19.84 wetland credits) will be available as the Bank is shown to be trending toward success. Likewise, 30% of the 190,954 stream/riparian credits (57,286 credits) will be available immediately as pre-certified credits, while the remainder (133,668 stream credits) will be released based on successful trends toward meeting all performance standards. In both cases, remaining credits are projected to be released and certified, along with certification of the initial credit release, over a minimum period of five years following execution of the Agreement and associated MBI.

Restoration Plans

In general terms, proposed habitat improvement and protection activities include stream bank stabilization to reflect a more natural geomorphology (O'Fallon Creek); nuisance species control, and revegetation of agricultural lands and riparian buffers; reduction in grazing pressure and improved long-term vegetation community management.

This initial plan presents restoration and rehabilitation activities that will be conducted as the implementation phase of the Bank Sites. Other activities that are required to complete the work include:

- Establishment of real estate protective instruments;
- Identification of a long-term manager to ensure proper functioning of the restored habitats;
- Final fencing and livestock management infrastructure installation.

Cole Ranch (Yellowstone River)

The foremost vegetation community on this Bank Site is a Mixed Riparian Forest type, which is characterized by the almost equal dominance of native plains cottonwood (*Populus deltoides*) trees and invasive Russian olive (*Eleangus angustifolia*) trees (Figure 9). The second most prominent vegetation community present is a Mixed Riparian Grassland type. This type consists of open grassy areas, primarily on the west end of the property. The common introduced species in these areas are crested wheat grass (*Agropyron cristatum*), quackgrass, smooth brome, and Kentucky bluegrass. The common native grass species in these areas are western wheat grass (*Pascopyron smithil*), needle and thread grass (*Hesperostipa comata*), prairie sand reed (*Calamovilfa longifolia*), and inland salt grass (*Distichlis spicata*). Other types interspersed within these two predominant community types consist of Non-Native Riparian Forest (Russian olive), Native Riparian Shrub (western snowberry [*Symphoricarpos occidentalis*]), silver buffaloberry [*Shepherdia argentea*]), and Native Riparian Forest (Plains cottonwood galleries). The following noxious weeds are present on the Cole property (in order of prevalence):

- Saltcedar (*Tamarisk chinensis*);
- Canada thistle (*Cirsium arvense*);
- Russian knapweed (*Centaurea repens*).

Restoration and management will include livestock exclusion and grazing management, nuisance species control, and supplemental planting of native grasses and shrubs to improve overall quality of the vegetation community.

Grazing Management

The management plan will include ceasing open livestock grazing within the riparian zone to allow for natural recruitment of resident vegetation. The long-term management plan may allow for periodic grazing to maintain high quality herbaceous vegetation, but never at the expense of the shrub community.





Nuisance Species Control

The density of saltcedar was greatest along the river's edge and within the gravel bars and ranged between 20 and 50 plants per one-hundredth acre (0.01 acre; 12-foot diameter). Some patches of Canada thistle were dense at 50-100 plants per 0.01 acre, while the areas of Russian knapweed were less dense at 5-10 plants per 0.01 acre. The herbicide Garlon 4 Ultra (active ingredient triclopyr) is recommended for cut stump application on Russian olive and saltcedar when the plants are not in or around water; for application in an aquatic or riparian setting, the use of the herbicide Habitat (imazapyr) is suggested for cut stump and foliage spraying.

Riparian Revegetation

A general approach for restoration of riparian zones will include seeding native grass with a seed mix containing needle-and-thread and western wheat grass. Broadcast seeding, followed by raking or harrowing, would allow for seed dispersal without churning the soil to a degree that would promote the expansion of existing introduced species. In addition, willows and other native shrubs will be planted to supplement natural recruitment in the riparian zone. In many cases willow cuttings can be collected from adjacent willow thickets on-site.

Waage-Schwarzkoph Property (Yellowstone River)

Similar to the Cole Ranch, the predominant vegetation type at this Bank Site is a Mixed Riparian Forest, with plains cottonwood and Russian olive as co-dominant tree species (Figure 10). Overall there is less Russian olive on the Waage property than on the Cole property. The understory in the Mixed Riparian Forest areas contains wild licorice, quackgrass, flixweed, and prairie chordgrass (*Spartina pectinata*) in places. Native Riparian Grassland and Native Riparian Shrub communities constitute secondary vegetation types. Western wheat grass and needle-and-thread grass are the common native species in the grassland areas, with some presence of prairie sand reed in the hummocks and terraces along the river. There are less introduced grass species at the Waage property than at the Cole property, although Kentucky bluegrass and Japanese brome (*Bromus japonicus*) are present in limited amounts. The Native Riparian Shrub locations are dominated by western snowberry, but also contain wood's rose (*Rosa woodsii*), silver buffaloberry, and skunkbrush sumac (*Rhus trilobata*).

Populations of noxious weeds encountered during the survey included (in order of prevalence):

- Saltcedar;
- Canada thistle;
- Hound's tongue (Cynoglossum officinale);
- Spotted knapweed (Centaurea stoebe).

Restoration and management will include livestock exclusion and grazing management, nuisance species control, and supplemental planting of native grasses and shrubs to improve overall quality of the vegetation community.









Grazing Management

The management plan will include ceasing open livestock grazing within the riparian zone to allow for natural recruitment of resident vegetation. The long-term management plan may allow for periodic grazing to maintain high quality herbaceous vegetation, but never at the expense of the shrub community.

Nuisance Species Control

The density of saltcedar was greatest along the river's edge and within the gravel bars and ranged between 20 and 50 plants per one-hundredth acre (0.01 acre; 12-foot diameter). Some patches of Canada thistle were dense at 50-100 plants per 0.01 acre, while the areas of Russian knapweed were less dense at 5-10 plants per 0.01 acre. The herbicide Garlon 4 Ultra (active ingredient triclopyr) is recommended for cut stump application on Russian olive and saltcedar when the plants are not in or around water; for application in an aquatic or riparian setting, the use of the herbicide Habitat (imazapyr) is suggested for cut stump and foliage spraying.

Riparian Revegetation

A general approach for restoration of riparian zones will include seeding native grass with a seed mix containing needle-and-thread and western wheat grass. Broadcast seeding, followed by raking or harrowing, would allow for seed dispersal without churning the soil to a degree that would promote the expansion of existing introduced species. In addition, willows and other native shrubs will be planted to supplement natural recruitment in the riparian zone. In many cases willow cuttings can be collected from adjacent willow thickets on-site.

Wetland Restoration

The predominant vegetation type in the wetland area of this Bank Site is a Mixed Riparian Forest, with plains cottonwood and Russian olive as co-dominant tree species (Figure 11). Overall there is less Russian olive than saltcedar, which dominates several areas. The understory in the Mixed Riparian Forest areas contains wild licorice, quackgrass, flixweed, and praire chordgrass (*Spartina pectinata*) in places.

Restoration and management will include livestock exclusion and grazing management, nuisance species control, and supplemental planting of native wetland grasses and shrubs to improve overall quality of the vegetation community.

Ringling Ranch (O'Fallon Creek)

O'Fallon Creek flows south to north, and is a tributary to the Yellowstone River, with the confluence located near the town of Fallon, Montana. O'Fallon Creek crosses the Ringling Ranch in the very upper portions of the drainage, with approximately 30,607 feet of O'Fallon Creek channel (5.7 O'Fallon Creek stream miles) located on the ranch property.

Vegetation composition within the study area can be divided into three general categories, or zones: upland, riparian, and streamside. Vegetation within much of the upland zone has been

manipulated from natural conditions to improve production of species more adept for livestock consumption. The majority of uplands are a mix of pasture grasses including brome (*Bromus spp.*) and wheatgrass (*Agropyron spp.*). The riparian zone along O'Fallon Creek includes a very narrow band of vegetation that extends down the stream banks to areas adjacent to the base flow water surface. These upper stream banks are dominated by species including crested wheatgrass (*Agropyron spicatum*), smooth brome (*Bromus inermus*), and common snowberry (*Symphorocarpus albus*). The presence of these species may be influenced by the spread of planted species in adjacent terraces. The lower stream banks adjacent to the water's edge are dominated by wetter species, including few-flowered spike-rush (*Eleocharis pauciflora*), and carex sp. (possibly Owlfruit sedge *Carex stipata*). Water buttercup (*Ranunculus aquatilis*), an annual or perennial species that grows in shallow, slow moving water, was also observed growing within the stream channel.

Grading and Restoration of Floodplain Hydrology

Livestock access to stream channels has had detrimental effects on channel stability, streamside vegetation, and sedimentation. The inspection of O'Fallon Creek found several banks that were severely impaired from livestock; also noted were stream banks that were reportedly affected by flooding in 2011. While the erosion of these banks may have been caused by flooding, their relatively unvegetated state causes them to be more susceptible to future erosion resulting from livestock. Nine eroding bank locations, totaling approximately 1,165, feet were mapped within the O'Fallon Creek study area and will be repaired.

In addition, a network of irrigation berms, or "spreader dikes," has been constructed to the west of O'Fallon Creek, and runs adjacent to the channel. This network of spreader dikes allows for more control of irrigation water diverted from Dugout Creek and localized surface water runoff generated during large storm events. Portions of the dikes run adjacent to the west side of O'Fallon Creek and may affect the extent of areas inundated during large flood events (i.e. a 100-year flood). Based on their location as compared to the estimated 100-year inundation zone, some of the dikes appear to be constricting the floodplain extents. Removal of these dikes will increase floodplain connectivity and provide a more natural floodplain extent during large floods.

Grazing Management

The management plan will include ceasing open livestock grazing within the stream and riparian zone to allow for natural recruitment of resident vegetation. The long-term management plan may allow for periodic grazing to maintain high quality herbaceous vegetation, but never at the expense of the native vegetation community.

Riparian Revegetation

Within the riparian buffer, restoration will entail the use of selective herbicide applications to decrease the prevalence of noxious weeds and introduced agricultural species, along with the application of a native riparian plant seed mix to increase diversity of those desirable species. Within the portion of the proposed riparian buffer zone that currently supports an agricultural upland plant community, more aggressive treatments will be used to convert the area to a native plant community. These treatments will include agricultural tillage and application of broad

spectrum herbicide to eradicate the existing agricultural plants, followed by replanting with a mix of native pasture grasses and other native species.

Wetland Restoration

The most common plants bordering the stream are sedges (*Carex spp.*), dock (*Rumex spp.*), horsetail (*Equisetum sp.*), reed canary grass (*Phalaris arundinacea*'), spikerush (*Eleocharis spp.*), bulrush (*Schoenoplectus spp.*), wild mint (*Mentha arvensis*), and box elder (*Acer negundo*). The stream channel is highly entrenched; therefore much of the area within the buffer zone adjacent to the channel is upland. However, there are several abandoned oxbows within the study area. Six of these oxbows were investigated for their potential to be included as potential mitigation opportunities. Several of these oxbows appear to be very old, while others are more recent. Five of these oxbows are appropriately situated and have sufficient hydrology to warrant inclusion in the Bank Site for purposes of wetland crediting (Figure 12, Table 1 and Exhibit 3).

AA1 and AA2 – These are two small, perched, seasonal wetlands at the south end of the property that receive overland flow and direct precipitation. Livestock exclusion, nuisance species control and supplemental planting with shrubs, along with upland buffers, will provide ecological lift in these areas.

AA3 – This is a large avulsed oxbow that currently supports wetland vegetation and mud flats along its alignment. The restoration strategy will be oriented toward improving water quality and creating more and better vegetated wetland areas throughout its length. Livestock exclusion, nuisance species control and upland buffer will also produce higher habitat values.

AA4 – Similar to AA3 except smaller, this oxbow will benefit from improved water quality and vegetation diversity through the addition of shrubs. Livestock exclusion, nuisance species control and upland buffer will also produce higher habitat values.

AA5 – This oxbow has been naturally avulsed and has high saline content soil. Livestock exclusion, nuisance species control and upland buffer will produce the ecological lift in this area.



Figure 12. Ringling Ranch riparian buffer and wetlands

Mitigation Bank Establishment and Operation

The Bank Sites under the LMYUA will be constructed pursuant to the aims and goals of the Federal Rule for the establishment, use, and operation of mitigation banks (Federal Register, 2008) and the banking guidance of the Omaha District U.S. Army Corps of Engineers. The Bank Sponsor agrees to perform all necessary work, in accordance with the provisions of the MBI, to establish and maintain aquatic habitats and associated upland buffers, as more fully described in the MBI's Bank Site Development Plan, until it is demonstrated to the satisfaction of the agencies represented on the IRT (acting through the Chair[s]) that the project complies with all provisions contained therein, or until all credits are sold, whichever is later. Work as described above shall include implementing all aspects of the restoration plans, as well as requisite monitoring, maintenance and management described below.

Permits

The Bank Sponsor will obtain all appropriate permits or other authorizations needed to construct and maintain the Bank, prior to beginning any of the work. This Prospectus or the MBI to follow do not fulfill, substitute for, or replace such authorization.

Monitoring, Maintenance and Management

Long-term Management

It is the Sponsor's intent to name a third-party, long-term manager acceptable to the Corps, in consultation with the IRT, to be responsible for managing the Bank Sites in perpetuity in accordance with the terms of a long-term management plan, the goals for which are provided below. The third party manager will also ensure compliance with real estate provisions, including the terms of the protective instrument. A detailed long-term management plan will be developed with the long-term management responsibilities to the Corps and IRT for review and approval before transfer of management responsibilities to the third party. The agreement between the Sponsor and long-term manager will specify that the long-term manager and its land stewards will provide oversight of management needs consistent with these goals and ensure full implementation of all protective instrument provisions. The agreement will further stipulate that costs associated with management of the Bank Sites up to the limits of the financial assurances, will be borne by the Sponsor during the Bank operation phase from the Contingency Fund, and funded by the Long-Term Management endowment for each Bank Site thereafter. Management Goals, Objectives and Process are as follows:

- Maintenance in perpetuity of the Bank Sites in the condition for which they were intended and for significant ecological and open space values as defined in Section 76-6-104 et seq Montana Code Annotated (MCA) and so as to provide significant, relatively natural habitat for native plants and wildlife;
- 2. Protection of the Bank Sites in perpetuity so as to contribute to the ecological integrity of the watersheds and tributaries, and including protection of values for aquatic habitat including trout and other native fish, riparian plant communities, diverse waterfowl and other birds, deer, elk and other wildlife;
- 3. Identify, preserve and protect in perpetuity the open space character and related significant natural features and values;
- 4. To enhance, upon mutual agreement, and in the event of their degradation or destruction, to restore the open space and significant relatively natural features and values of the Bank Sites utilizing the financial resources from the Long-term Management Fund and to include the case of unforeseen negative influences;
- 5. To conserve important habitat for wildlife, to protect rare and unique native plants, to conserve and restore unique aquatic habitat for native fish, and to conserve the diverse riparian and/or other vegetation communities and the wildlife inhabiting those communities;
- 6. To allow for the management of the Bank Sites by providing access by all-terrain vehicles or horses, via trails and other means of access in a manner consistent with the restored and enhanced ecological functions and values established under the Agreement;
- 7. For instances where irrigation conveyances transect the areas within the Bank Sites, to allow for the maintenance of such irrigation conveyances using all available best

management practices and other efforts to protect the ecological functions and values established under the Agreement;

8. To allow for the management of the Bank Sites through use of approved biocides and controlled grazing, particularly in riparian zones, as approved by the Corps, in consultation with the IRT.

Monitoring and Maintenance

Bank Sites will be monitored annually using standard habitat monitoring techniques for a minimum of five years. Performance standards will be established against which the monitoring results will be compared to determine the level of success attained by each Bank Site. Maintenance efforts and adaptive management strategies will be employed to address any parameter for which any of the Bank Sites is failing to meet performance standards in a timely fashion. The monitoring and maintenance plan for the Bank Sites will include:

- 1. Montana USDA-NRCS Riparian Assessment Methodology (MT RAM);
- 2. MWAM (2008) parameters, measured in part by (3.) and (4.) below, as appropriate;
- 3. Greenline Method (Winward 2000) is used as a component of the MT RAM to describe stream-side vegetation communities;
- 4. Standard quantitative monitoring protocols (transects located to intersect a representative vegetation profile, broken into intervals to intersect community types, vegetation inventories of those intervals cataloging species and cover class, 100 m² x 10 m² belt transects for woody species, permanent photo-stations, etc.);
- 5. Scientific binomial nomenclature follows Dorn (1984).

Monitoring for the Bank Sites will be done annually for no less than five consecutive years, with Year 1 monitoring to be completed during the first full growing season following execution of the MBI Agreement. An annual report will be submitted to the Corps, and the Corps, in consultation with the IRT, may direct that monitoring be suspended after the submittal of the Year 5 monitoring report.

Maintenance efforts may include one or more of the following actions:

- 1. Wetlands
 - Use of appropriately labeled herbicides and/or biological controls to manage for nuisance species, including weeds and non-native grasses and herbs which lower the FQI for that area;
 - Maintenance of hydrologic features such as gates and check structures which facilitate maintenance of water movement in accordance with water rights;
 - Mending of livestock exclusion fences and related gates and crossings as needed.
- 2. Streams and Riparian Buffers
 - Use of appropriately labeled herbicides and/or biological controls to manage for nuisance species, including weeds and non-native grasses and herbs which negatively affect the species diversity for that area;

- Manual removal of nuisance species (such as Russian olive), appropriate disposal of slash, and application of biocides to remaining stumps;
- Maintenance of stream features such as pools, riffles and glides, to the extent such features are not developing in accordance to natural stream geomorphology;
- Mending of livestock exclusion fences and related gates and crossings as needed.
- 3. Upland Buffers
 - Use of appropriately labeled herbicides and/or biological controls to manage for nuisance species, including weeds and non-native grasses and herbs which negatively affect the species diversity for that area;
 - Manual removal of nuisance species (such as Russian olive), appropriate disposal of slash, and application of biocides to remaining stumps;
 - Mending of livestock exclusion fences and related gates and crossings as needed.

Adaptive management elements may be implemented in the event the Bank continues to fall short of performance standards. The Sponsor shall follow the adaptive management plans and implement appropriate remedial actions for the Bank in coordination with the Corps and IRT. In the event the Bank is not adequately meeting performance standards, the Corps, in consultation with the IRT, may require the implementation of one or more of the following actions:

- 1. Wetlands
 - Vegetation criteria supplemental planting with high quality native wetland vegetation;
 - Hydrology criteria address nature and source of failure (e.g. side ditches with unanticipated hydraulic effects);
 - FQI / Species Richness supplemental planting with high quality native vegetation;
 - Exotic species active weed management plan including manual removal, spraying and/or biological control;
 - Scrub-Shrub classification supplemental planting with scrub-shrub classified plants.
- 2. Streams and Riparian Buffers
 - Geomorphology stabilization of bank failures, modification of stream pattern, profile and/or dimension;
 - Bank-full events modification of stream pattern, profile and/or dimension to effect bank-full event;
 - Riparian buffer vegetation supplemental planting with high quality native vegetation;
 - Exotic species active weed management plan including manual removal, spraying and/or biological control.
- 3. Upland Buffers
 - Vegetation criteria supplemental planting with high quality native vegetation;
 - Exotic species active weed management plan including manual removal, spraying and/or biological control.

Financial Assurances and Site Protection

Financial Assurances

The development and operation of each Bank Site will be assured of success and financial stability by way of a Contingency Fund, in the form of a casualty insurance policy, and a Long-Term Management Fund, in the form of cash-in-escrow endowment, which will vary in amount per Bank Site as follows:

- Contingency Fund:
 - Cole Ranch: \$25,000, covering nuisance species removal and other restoration costs of the Bank during the implementation period;
 - Waage-Schwarzkoph: \$25,000, covering nuisance species removal and other restoration costs of the Bank during the implementation period;
 - Ringling Ranch: \$100,000, covering wetland planting, O'Fallon Creek channel improvements, levee removals and riparian buffer establishment and other restoration costs during the Bank implementation period.
- Long-Term Management Fund:
 - Cole Ranch: \$25,000, covering nuisance species control, fence maintenance and other maintenance items during the long-term management period;
 - Waage-Schwarzkoph: \$25,000, covering nuisance species control, fence maintenance and other maintenance items during the long-term management period;
 - Ringling Ranch: \$50,000, covering nuisance species control, fence maintenance, supplemental planting if needed, livestock crossings and other maintenance items during the long-term management period.

Site Protection

Each Bank Site will be protected in perpetuity by way of a special condition to the 404 permit(s) required for the restorative work as provided for by Omaha District policy and precedent.

Water Rights

Pursuant to 33 CFR 332.8(d)(2)(vii)(B) and 33 CFR 332.8(u)(4), "Where needed, the acquisition and protection of water rights should be secured and documented in the instrument....". Bank Sponsor and the land owners own, possess and/or have good and sufficient rights to the water sources, which are hereby committed to the support of the ecological functions inherent in the Bank's credits.

The MBI will provide evidence of available water rights, among other hydrologic management elements that are also components of the Bank Sites. The Sponsor and land owners warrant that the application of those rights to the intended uses, as expressed within this Prospectus and in the future MBI, are in compliance with the Montana Department of Natural Resources and Conservation water rights, rules and policies and Montana water law.

Accounting Procedures

The Sponsor intends to establish and maintain a separate ledger for each Bank Site to account for all credit transactions. Each time an approved credit transaction occurs, the Sponsor will promptly notify the District Engineer.

In addition, the Sponsor intends to establish and maintain an annual ledger report for each Bank Site showing the beginning and ending balance of available credits and permitted impacts for each resource type within those Bank Sites, all additions and subtractions of credits, and any other changes in credit availability (e.g., additional credits released, credit sales suspended). The Sponsor will submit the ledger report to the District Engineer, for distribution to the IRT members, in form and format for entry into RIBITS. The ledger report will be part of the administrative record for each Bank Site under the Agreement. Pursuant to the Federal Rule, it is anticipated the District Engineer will make the ledger report available to the public upon request.

Document Preparers

This Prospectus and supporting documents were prepared by:

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- Nola Freestone, Eco-Asset Management, LLC
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- Catherine McIntyre, Geum Environmental Consulting, Inc.
- Mike Sanctuary and Jim Johnson, Confluence Consulting, Inc.

Exhibit 1

Land Ownership Information

Property Record Card

Tax Year 2013

NOTE: The parcel for this owner cannot be mapped.

Summary

Primary Information

Property Category: RP Geocode: 33-1537-06-3-03-01-0000

Primary Owner:

COLE NORRIS E INC

7 COLE LN

FORSYTH, MT 59327-9489

NOTE: See the Owner tab for all owner information

Certificate of Survey:

Subdivision:

Legal Description:

S06, T06 N, R38 E, SW, S2NW, LTS 5,6,7,8

Last Modified: 8/14/2012 3:06:38 AM

General Property Information

Neighborhood: 001Property Type: FR - Farmstead RuralLiving Units: 1Levy District: 33-1922-7RC7Zoning:Ownership %: 100

No linked properties exist for this property

Exemptions:

No exemptions exist for this property

Fronting: 0 - None

Parking Quantity:

Parking Proximity:

Parking Type:

Condo Ownership: General: 0

Linked Property:

Limited: 0

Property Factors

Topography: 8 Utilities: 9

Access: 0

Location: 0 - Rural Land

Land Summary

 Land Type
 Acres
 Value

 Grazing
 167.994
 00.00

 Fallow
 0.000
 00.00

 Irrigated
 129.075
 00.00

Subcategory: Real Property Assessment Code: 000R700410 PropertyAddress:

COS Parcel:

Property Record Card Tax Year 2013 -Print Summary Primary Information Property Category: RP Subcategory: Real Property Geocode: 29-1542-07-1-01-01-1307 Assessment Code: 0000002642 Primary Owner: PropertyAddress: SCHWARZKOPH BILL F PO BOX 482 COS Parcel: FORSYTH, MT 59327-0482 NOTE: See the Owner tab for all owner information Certificate of Survey: Subdivision: Legal Description: S07, T06 N, R42 E, NW4NE4, SE4NW4, L1-8 Last Modified: 8/14/2012 2:43:10 AM General Property Information Neighborhood: 001 Property Type: AR - Agricultural Rural Living Units: 0 Levy District: 29-0795-0012 Ownership %: 100 Zoning: Linked Property: No linked properties exist for this property Exemptions:

No exemptions exist for this property

Condo Ownership:

General: 0

Limited: 0

Property Factors

Topography: 8 Utilities: 0 Access: 0

Location: 0 - Rural Land

Land Summary

Fronting: 0 - None Parking Type:

- Parking Quantity:
- Parking Proximity:

Land Type	Acres	Value
Grazing	307.000	00.00
Fallow	0.000	00.00
Irrigated	0.000	00.00

Property Record Card Tax Year 2013 Print Summary Primary Information Property Category: RP Subcategory: Real Property Geocode: 42-1356-32-1-01-01-0000 Assessment Code: 4201151355 Primary Owner: PropertyAddress: RINGLING RANCH LTD PARTNERSHIP PO BOX 1029 P0 BOX 1029 COS Parcel: MILES CITY, MT 59301-1029 Hites City MT 59301-1029

NOTE: See the Owner tab for all owner information

Certificate of Survey: Subdivision: Legal Description: S32, T04 N, R56 E, ALL Last Modified: 8/14/2012 3:58:25 AM General Property Information Neighborhood: 001 Property Type: AR - Agricultural Rural Living Units: 0 Levy District: 42-1087-15 Ownership %: 100 Zoning: Linked Property: No linked properties exist for this property Exemptions: No exemptions exist for this property Condo Ownership:

General: 0

Limited: 0

Property Factors

Topography: 8 Utilities: 0 Access: 0

Location: 0 - Rural Land

Parking Type: Parking Quantity: Parking Proximity:

Fronting: 0 - None

Land Summary

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	Land Type	Acres	Value
	Grazing	520.815	00.00
	Fallow	0.000	00.00
	Irrigated	0.000	00.00

Exhibit 2

Montana Stream Mitigation Procedure Tables

Riparian Credits

Factors		Mitigation	Mitigation	Mitigation	Mitigation	Mitigation
		Reach 1	Reach 2	Reach 3	Reach 4	Reach 5
Net Improvement	Stream Side A	0.8	0.8	0.8	0	0
Net Improvement	Stream Side B	0	0	0.8	0	0
Type of Protection		0.03	0.03	0.12	0	0
Mitigation Timing		0.08	0.08	0.08	0	0
Comparative Stream Order		0.2	0.2	0.2	0	0
Location		0.1	0.1	0.1	0	0
Sum of Factors (SF _m)		1.21	1.21	2.1	0	0
Linear Feet (LF _m)		7320	8820	30607	0	0
Reach Multiplier (RM)		0.75	0.75	1.25	0	0
SF _m x LF _m X RM		6,642.9	8,004.2	80,343.4	0.0	0.0

Total Riparian Credits = Σ (SF_m x LF_m X RM) = 94,990.4

Stream Credits

Factors	Mitigation	Mitigation	Mitigation	Mitigation	Mitigation
	Reach 1	Reach 2	Reach 3	Reach 4	Reach 5
Net Improvement	1.2	1.2	1.8	0	0
Stream Status	0.05	0.05	0.05	0	0
Type of Protection	0.03	0.03	0.03	0	0
Mitigation Timing	0.08	0.08	0.08	0	0
Comparative Stream					
Order	0.2	0.2	0.2	0	0
Location	0.1	0.1	0.1	0	0
Sum of Factors (SF_m)	1.66	1.66	2.26	0	0
Linear Feet (LF _m)	7320	8820	30607	0	0
SF _m x LF _m	12,151.2	14,641.2	69,171.8	0.0	0.0

Total Stream Credits =
$$\Sigma$$
 (SF_m x LF_m) = 95,964.2

NOTE:

Mitigation Reach 1 - Cole Ranch, Yellowstone River and adjacent riparian buffer

Mitigation Reach 2 - Waage-Schwarzkoph, Yellowstone River and adjacent riparian buffer

Mitigation Reach 3 - Ringling Ranch, O'Fallon Creek and adjacent riparian buffer

	Mitigation Banking Credit Summary	Credit	Linear Ft
B	Riparian zone Enhancement	94,990.4	46,747.0
C	Stream Restoration	95,964.2	46,747.0
D	Total Proposed Bank Mitigation = B + C	190,954.6	93,494.0

Exhibit 3

PRELIMINARY

MWAM Summary Tables and Forms – Pre- and Post-Restoration

Waage-Schwarzkoph – AA1 – Pre- and Post-Restoration Scores

Pre-restoration:

Functions and values summary

Function and Value Variables	Rating	Functional Points	Points Possible	Functional Units	Four Prominent Functions
14A. Threatened/endangered species	L	0.0	1.0	0.00	
14B. S1, S2, S3 species	L	0.0	1.0	0.00	
14C. Wildlife habitat	L	0.3	1.0	17.31	
14D. Fish habitat	М	0.7	1.0	40.39	•
14E. Flood attenuation	н	0.8	1.0	46.16	•
14F. Surface water storage	н	0.8	1.0	46.16	•
14G. Sediment/nutrient/toxicant	М	0.4	1.0	23.08	
14H. Shoreline stabilization	L	0.1	1.0	5.77	
14I. Production export	М	0.6	1.0	34.62	•
14J. Groundwater	NA				
14K. Uniqueness	L	0.1	1.0	5.77	
14L. Recreation/education	NA				
Totals:		3.80	10.0	219.26	
Score:		38%			

Post-restoration:

Functions and values summary

Function and Value Variables	Rating	Functional Points	Points Possible	Functional Units	Four Prominent Functions
14A. Threatened/endangered species	L	0.0	1.0	0.00	
14B. S1, S2, S3 species	н	0.9	1.0	51.93	•
14C. Wildlife habitat	н	0.9	1.0	51.93	•
14D. Fish habitat	E	1.0	1.0	57.70	•
14E. Flood attenuation	н	0.9	1.0	51.93	•
14F. Surface water storage	н	0.8	1.0	46.16	
14G. Sediment/nutrient/toxicant	н	0.9	1.0	51.93	
14H. Shoreline stabilization	М	0.7	1.0	40.39	
14I. Production export	н	0.9	1.0	51.93	
14J. Groundwater	NA				
14K. Uniqueness	м	0.6	1.0	34.62	
14L. Recreation/education	н	0.15	NA	8.66	
Totals:		7.75	10.0	447.18	
Score:		78%			

Ringling Ranch – AA1 thru AA5 – Pre- and Post-Restoration Scores

Pre-restoration:

Functions and values summary

Function and Value Variables	Rating	Functional Points	Points Possible	Functional Units	Four Prominent Functions
14A. Threatened/endangered species	L	0.0	1.0		
14B. S1, S2, S3 species	L	0.0	1.0		
14C. Wildlife habitat	L	0.1	1.0		
14D. Fish habitat	L	0.2	1.0		•
14E. Flood attenuation	L	0.1	1.0		
14F. Surface water storage	н	0.8	1.0		•
14G. Sediment/nutrient/toxicant	L	0.2	1.0		
14H. Shoreline stabilization	L	0.2	1.0		
14I. Production export	М	0.4	1.0		•
14J. Groundwater	М	0.7	1.0		•
14K. Uniqueness	L	0.1	1.0		
14L. Recreation/education	NA				
Totals:		2.80	11.0		
Score:		25%			

Post-restoration:

Functions and values summary

Function and Value Variables	Rating	Functional Points	Points Possible	Functional Units	Four Prominent Functions
14A. Threatened/endangered species	L	0.0	1.0		
14B. S1, S2, S3 species	Н	0.9	1.0		
14C. Wildlife habitat	н	0.9	1.0		•
14D. Fish habitat	М	0.6	1.0		
14E. Flood attenuation	М	0.6	1.0		
14F. Surface water storage	н	0.8	1.0		•
14G. Sediment/nutrient/toxicant	н	0.9	1.0		•
14H. Shoreline stabilization	н	0.9	1.0		•
14I. Production export	н	0.9	1.0		
14J. Groundwater	М	0.7	1.0		
14K. Uniqueness	М	0.6	1.0		
14L. Recreation/education	М	0.10	NA		
Totals:		7.90	11.0		
Score:		72%			