



Public Notice

**U.S. Army Corps
of Engineers**

Pittsburgh District

In Reply Refer to
Notice No. below

US Army Corps of Engineers, Pittsburgh District
1000 Liberty Avenue
Pittsburgh, PA 15222-4186

Application No. 2014-1128

Date: November 4, 2014

Notice No. 14-45

Closing Date: December 4, 2014

1. **TO ALL WHOM IT MAY CONCERN:** The District Engineer has received a mitigation prospectus to establish a wetland and/or stream compensatory mitigation bank for Federal and State permits as described in this Public Notice. Issuance of a public notice regarding proposed mitigation banks is required pursuant to the “Compensatory Mitigation for Losses of Aquatic Resources; Final Rule,” (Rule) as published in the April 10, 2008, Federal Register, Vol. 73, No. 70, Pages 19594-19705 (33 CFR Parts 332). The purpose of this public notice is to inform you of the proposed mitigation bank and to solicit your comments and information to better enable us to make a reasonable decision on factors affecting the public interest. We hope you will participate in this process.

INTERAGENCY REVIEW TEAM: As indicated in the U.S. Army Corps of Engineers (Corps) regulations [33 CFR 332.8(b)], the District Engineer has established an Interagency Review Team (IRT) to review documentation for the establishment and management of mitigation banks and in-lieu fee programs. The primary role of the IRT is to facilitate the establishment of mitigation banks and/or in-lieu fee programs through the development of mitigation banking or in-lieu fee program instruments. The Corps Huntington District (Regulatory Division) is the lead district for the state of West Virginia (WV) and chairs (or leads) the WV IRT. The WV IRT consists of the following federal and state resource agencies: Corps Huntington and Pittsburgh Districts, U.S. Environmental Protection Agency (USEPA), U.S. Fish and Wildlife Service (USFWS), U.S. Department of Agriculture’s Natural Resource Conservation Service (NRCS), West Virginia Department of Environmental Protection (WVDEP) and West Virginia Division of Natural Resources (WVDNR).

2. **APPLICANT:** WV Bunrootis, L.L.C.
400 South Record, Suite 1250
Dallas, TX 75202

3. **LOCATION:** Along County Route 3/5 Kincheloe Run Road in both Lewis and Harrison County, WV (Latitude: 39°09’54.30” Longitude: 80°34’18.52”).

4. PURPOSE AND DESCRIPTION OF WORK: The applicant proposes to perform stream restoration/enhancement along unnamed tributaries of Sand Fork of Kincheloe Creek, unnamed tributaries of Kincheloe Creek, and Kincheloe Creek. A total of approximately 27,843 linear feet of stream within the property boundary will be enhanced, preserved, and/or restored. Establishment of stable dimensions, pattern, and profile conducive to proper sediment transport while connecting the channels to a floodplain will occur. The implementation of these goals includes in-stream restoration and enhancements of channel widths, depths, cross sectional areas, and shapes. Additional property is being pursued and may be added to the mitigation site plan as the property is acquired and plans are developed. Drawings of the proposed site are attached to this notice.

5. WEST VIRGINIA CERTIFICATION: In accordance with Nationwide Permit No. 27 [under the February 21, 2012 Federal Register, Reissuance of Nationwide Permits (77 FR 10184)], a general Section 401 Water Quality Certification with special conditions applies. Prior written approval is required from the WVDEP Division of Water and Waste Management in concurrence with the WVDNR.

6. IMPACT ON NATURAL RESOURCES: The District Engineer has consulted the most recently available information and has determined that the project will have no effect on endangered species or threatened species, or result in destruction or adverse modification of habitat of such species which has been determined to be critical. The U.S. Fish and Wildlife Service has been consulted and indicated that “no affect” endangered species was anticipated in association with the project by the letter dated February 25, 2014. While concurrence with this determination is not required, this Public Notice serves as a request to the U.S. Fish and Wildlife Service for any additional information they may have on whether any listed or proposed to be listed endangered or threatened species may be present in the area which would be affected by the activity, pursuant to Section 7(c) of the Endangered Species Act of 1972 (as amended).

7. IMPACT ON CULTURAL RESOURCES: The National Register of Historic Places has been consulted, and it has been determined that there are no properties currently listed on the register which would be directly affected by the proposed work. The WV Culture and History Center has been consulted and indicated that listings for the National Register of Historic Places were not anticipated in association with the project as per letter dated May 28, 2014, FR#’s: 14-30-MULTI-1 & 14-430-MULTI-2. If we are made aware, as a result of comments received in response to this notice, or by other means, of specific archeological, scientific, prehistorical, or historical sites or structures which might be affected by the proposed work, the District Engineer will immediately take the appropriate action necessary pursuant to the National Historic Preservation Act of 1966 - Public Law 89-665 as amended (including Public Law 96-515).

8. PUBLIC INVOLVEMENT: Any person who has an interest that may be adversely affected by the approval of this mitigation bank may request a public hearing. The request must be submitted in writing to the District Engineer on or before the expiration date of this notice and must clearly set forth the interest which may be adversely affected and the manner in which the interest may be adversely affected by the activity. This application will be reviewed in

accordance with 33 CFR 320-332, the Regulatory Program of the Corps, and other pertinent laws, regulations, and executive orders. Interested parties are invited to state any objections they may have to the proposed work. The decision whether to approve this mitigation bank will be based on an evaluation of the probable impact including cumulative impacts of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefit that reasonably may be expected to accrue from the proposal must be balanced against its reasonably foreseeable detriments. All factors that may be relevant to the proposal will be considered including the cumulative effects thereof; of those are conservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership and, in general, the needs and welfare of the people. Any person may submit cumulative impact information, which is substantive and specifically associated with the proposed action. In addition, the evaluation of the impact of the activity on the public interest will include application of the guidelines promulgated by the Administrator, USEPA, under the authority of Section 404(b) of the Clean Water Act. Written statements on these factors received in this office on or before the expiration date of this public notice will become a part of the record and will be considered in the final determination.

9. **SOLICITATION OF COMMENTS:** The Corps is soliciting comments from the public; Federal, state, and local agencies and officials; Indian Tribes; and other interested parties in order to consider and evaluate this proposed mitigation bank. For accuracy and completeness of the administrative record, all data in support of or in opposition to the proposed work should be submitted in writing setting forth sufficient detail to furnish a clear understanding of the reasons for support or opposition. Any comments received will be considered by the Corps to determine whether to approve, modify, condition or deny this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

10. **RESPONSES:** All comments pertaining to this Public Notice must reach this office on or before the close of the comment period listed on page one of this Public Notice. If no comments are received by that date, it will be considered that there are no objections. Comments and requests for additional information should be submitted to:

U.S. Army Corps of Engineers, Pittsburgh District
1000 Liberty Avenue
Pittsburgh, PA 15222-4186
Re: Public Notice CELRP-OP-F No. 14-45

Please note names and addresses of those who submit comments in response to this public notice

CELRP-OP-F
Public Notice No. 14-45

become part of our administrative record and, as such, are available to the public under provisions of the Freedom of Information Act. Thank you for your interest in our Nation's water resources. If you have any questions concerning this public notice, please direct them to the Regulatory Branch, attn Jared Pritts at the above address, by telephoning (412)-395-7251, or by e-mail at jared.n.pritts@usace.army.mil Please refer to **CELRP-OP-F 2014-1128** in all responses.

FOR THE DISTRICT ENGINEER:

//SIGNED//

Karen Kochenbach
Chief, Southern Section
Regulatory Branch

**KINCHELOE MITIGATION
BANK DRAFT PROSPECTUS
IN ACCORDANCE WITH PUBLIC NOTICE
LRH-2009-WV IRT INITIATIVES**



Prepared for
WV Bunrootis, LLC
Dallas, Texas



Prepared by
Alliance Consulting, Inc.

**ALLIANCE PROJECT NO. B14-001-1760
JANUARY 2014**

Summersville, WV

848 Northside Drive
Summersville, WV 26651
Telephone: (304) 883-2360
Fax: (304) 883-2361

Beckley, WV

Raleigh County Airport Industrial Park
124 Philpott Lane
Beaver, WV 25813-9502
Telephone: (304) 255-0491
Fax: (304) 255-4232

Canonsburg, PA

3 Four Coins Dr., Ste. 100
Canonsburg, PA 15317
Telephone: (724) 745-3630
Fax: (724) 745-3631

**KINCHELOE MITIGATION
BANK DRAFT PROSPECTUS
IN ACCORDANCE WITH PUBLIC
NOTICE LRH-2009-WV IRT INITIATIVES**



Prepared for
WV Bunrootis, LLC
Dallas, Texas



Prepared by
Alliance Consulting, Inc.

**ALLIANCE PROJECT NO. B14-001-1760
JANUARY 2014**



The following draft prospectus has been developed in accordance with Public Notice No. LRH-2009-WV IRT Initiatives.

Bank Name

The proposed facility will be called the Kincheloe Mitigation Bank. The project will be located on multiple unnamed tributaries of Sand Fork of Kincheloe Creek, multiple unnamed tributaries of Kincheloe Creek, and Kincheloe Creek of the West Fork River of the Monongahela River. The approximate center of the project is located at 39°09'54.30" Latitude, and 80°34'18.52".

Contacts

The facility will be operated by:

WV Bunrootis, LLC
400 South Record, Suite 1250
Dallas, Texas 75202

The engineering consultant associated with the project will be:

Alliance Consulting, Inc.
124 Philpott Lane
Beaver, WV 25801

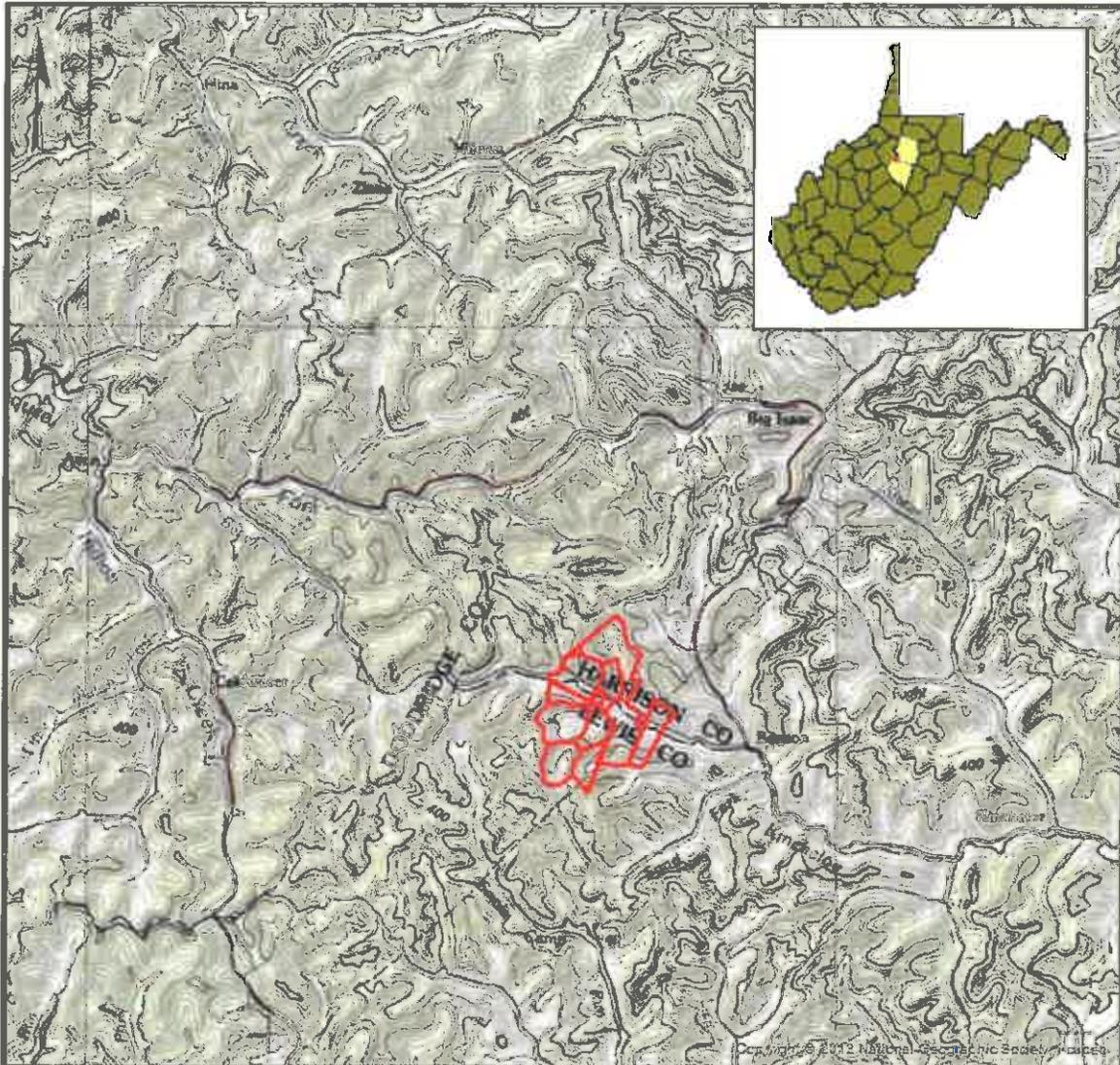
Directions to the Facility

Directions to the facility have been included below:

- From Morgantown, WV merge onto I-79S towards Fairmont – travel 44 miles.
- Take exit 105 for County Road 7 toward Jane Lew – travel 0.2 miles.
- Turn right onto County Road 7/Hachers Creek Road – travel 0.8 miles.
- Turn right onto US-19 N/Main Street – travel 3.9 miles.
- Turn left onto County Route 3/5 / Kincheloe Run Road, continue following Kincheloe Run Road – travel 9.8 miles
- Road runs through the permit area.

Project Location Map

Please refer to Drawing No. B14-001-A1 Entitled "Project Location Map".



REFERENCE:

ArcGIS map service, USA topo maps (USGS topographic maps)
http://gto.arcgis.com/maps/usa_topo_maps
 1:24000 Big Is Geo Quadrant



Legend

PROPERTY BOUNDARY

Alliance Consulting, Inc.
Engineers - Constructors - Scientists
 124 PHILPOTT LANE
 BEAVER, WV 25813
 (304) 255-0491

PROJECT LOCATION MAP
 KINCHELOE MITIGATION BANK
 HARRISON AND LEWIS COUNTIES
 WEST VIRGINIA
 PREPARED FOR
 WV BUNROOTS, LLC
 DALLAS, TEXAS

DRAWN BY	DR	1/29/14
CHECKED BY	TJS	1/29/14
APPROVED BY		
DRAWING NUMBER		
B14-001-A1		

USGS Topographic Map

Please refer to Drawing No. B14-001-A2 Entitled "USGS Topographic Map".

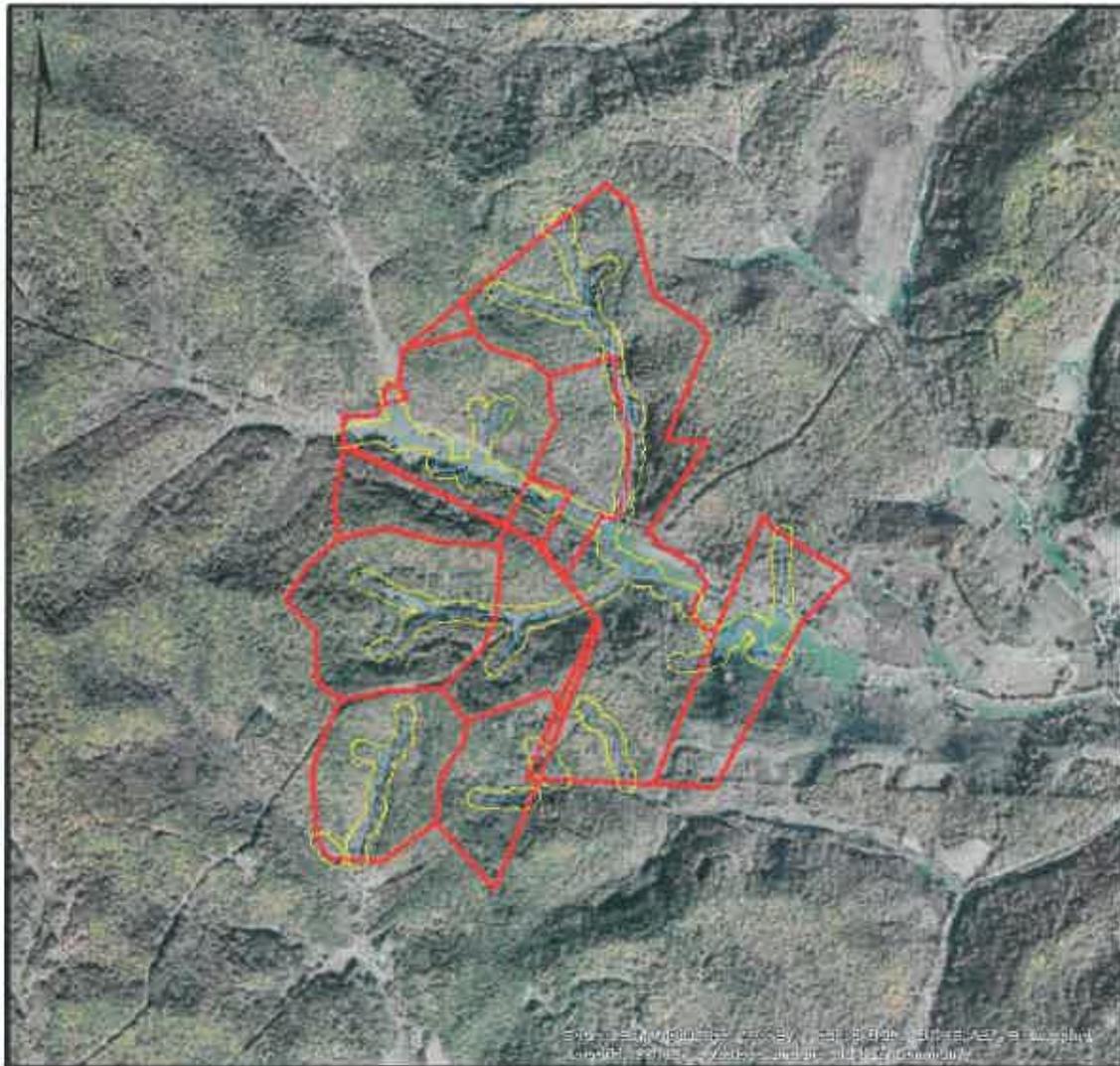


<p>REFERENCE:</p> <p>ArcGIS map service, USA topo maps (USGS topographic maps) http://goc.arcgis.com/arcgis/rest/services/usa_topo_maps/1:24000_Big_Isaac_Quad/arcgis/rest/content</p> <p>0 1,000 2,000 4,000 6,000 Feet</p>	<p>Legend</p> <p> PROPERTY BOUNDARY</p>
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<p>Alliance Consulting, Inc. <i>Engineers · Constructors · Scientists</i> 124 PHILPOTT LANE BEAVER, WV 25813 (304) 255-0491</p>	<p>USGS TOPOGRAPHIC MAP KINCHELOE MITIGATION BANK HARRISON AND LEWIS COUNTIES WEST VIRGINIA PREPARED FOR WV BUNROOTS, LLC DALLAS, TEXAS</p>	DRAWN BY	DR	1/29/14
		CHECKED BY	TJS	1/29/14
APPROVED BY		DRAWING NUMBER		
		B14-001-A2		

Aerial Photo Map

Please refer to Drawing No. B14-001-A3 Entitled "Site Plan Map".



<p>REFERENCE: AERIAL IMAGERY COURTESY OF ARC GIS ONLINE MAP SERVICE. RETRIEVED 1/23/14</p> <p>0 750 1,500 3,000 4,500 Feet</p>	<p>Legend</p> <ul style="list-style-type: none"> — PROPERTY STREAMS 100 FOOT STREAM BUFFER PROPERTY BOUNDARY
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<p>Alliance Consulting, Inc. <i>Engineers • Constructors • Scientists</i> 124 PHILPOTT LANE BEAVER, WV 25813 (304) 255-0491</p>	<p>SITE PLAN MAP KINCHELOE MITIGATION BANK HARRISON AND LEWIS COUNTIES WEST VIRGINIA PREPARED FOR WV BUNROOT'S, LLC DALLAS, TEXAS</p>	DRAWN BY	DR	1/29/14
		CHECKED BY	TJS	1/29/14
APPROVED BY				
DRAWING NUMBER		B14-001-A3		

Site Condition Descriptions

A site visit of Kincheloe Creek of the West Fork River, a tributary to the Monongahela River, was conducted on December 15, 2013. The goal of the visit was to assess the potential for stream restoration/enhancement on the property.

There is approximately 27,843 feet of stream within the property boundaries. The assessment yielded consistent characteristics throughout the reaches. The streams show excessive erosion with mass wasting in multiple areas. This is most likely a result of high banks, loss of access to the floodplain, poor rooting depth and density, and erosive soils. The areas that do not show signs of erosion have either a lower bank height ratio, or the rooting depth of the vegetation extends down to an elevation that serves as armor against the stress.

Irregular deposition patterns were also observed throughout the reaches. The majority of these deposits was related to woody debris or channelized stream segments within the properties.

Lateral boundaries for establishing floodplain and a riparian buffer could be confined in certain areas due to existing infrastructure and uses (i.e. existing roads). The location of utilities could play a role in excavation.

Please refer to Appendix A for Site Photographs from the subject property.

Please refer to Appendix B for WVIRT Field Evaluation form for Mitigation Bank Proposal.

Conceptual Scope of Work

The impairments of unnamed tributaries of Sand Fork of Kincheloe Creek, unnamed tributaries of Kincheloe Creek, and Kincheloe Creek through the properties are consistent.

A high percentage of the reaches have lost connection to the floodplains. The streams display lateral migration, excessive erosion, irregular channel dimensions, impaired patterns, and irregular depositional patterns. The goals of the project would be the establishment of stable dimensions, pattern, and profile conducive to proper sediment transport while connecting the channels to a floodplain, where needed.

The implementation of these goals would include in-stream restoration and enhancement of channel widths, depths, cross sectional areas, and shapes. Coinciding with the restoration / enhancement of dimension would be the construction of a stable pattern in areas of the streams that exhibit impairments. Several areas appear to have irregular meanders with extreme sheer stress and mass wasting. These areas would be constructed to a more stable meander. The restoration / enhancement of the profile would correlate with the pattern. The objective would be to create riffle, run, pool, and glide features with characteristics specific to this channel. The items discussed above would be designed to promote proper sediment transport including stable depositional patterns.

The restoration efforts would also include the reconnection of the streams to the floodplain, where necessary. The reconnection would most likely require the excavation and / or the construction of a new floodplain. This disconnection potentially exceeds the feasibility of reconnecting to the original or historic floodplain. The new floodplain would be created at an elevation specific to the streams to allow for the dissipation of energy, as well as, proper sediment transport.

The design of the previously mentioned parameters would be based on Rosgen's Natural Channel Design principles. With that stated, Rosgen type structures would be built throughout the reach. The purposes of these structures include in stream feature stability, bank stability, and habitat creation. The types of structures that could potentially be used, but are not limited to, include rock vanes, rock cross vanes, log vanes, log cross vanes, and rootwads. The potential is high for the use of wood for the structure construction. The property contains an excess of woody material around the streams that may be used, as well as, the potential trees that would be removed as a result of floodplain excavation.

The establishment and / or enhancement of a sufficient riparian buffer would also be implemented as part of the project. Establishment of vegetation would serve as a critical piece to the restoration efforts. The vegetation would prove valuable for channel stability and habitat. There is a potential in some of these areas that some form of bank armor may be required due to site constraints. If this proves to be the case, a more environmentally natural form would be utilized.

Any utilities that fall within the work area may need additional attention, and or relocation.

In conclusion, the specified reaches are within an impaired system that needs attention. The restoration / enhancement discussed above would greatly benefit the channel, the wildlife, the property, and the watershed.

Property Owners of Record

The current parcels to be utilized for this operation are found in the Union-Outside District and Freemans Creek Districts of Harrison and Lewis Counties, WV, respectively, as outlined below. The current owners were identified using Digital Courthouse on 1/29/2014.

Parcel Nos. 20-421-26, 20-421-4, 20-421-5, 20-421-6, 20-421-8, 20-421-27, 3-4A-27, 3-4A-29, 3-4A-28, 3-4A-30, and 3-4A-31 are all owned by Ker-Chi and Yeewen L. Chang of 13416 Cleveland Drive, Rockville, MD 20850. Parcel No. 20-421-29 is owned by John T. and Stephanie J. Sowell, of RR 2 Box 138-A, Jane Lew, WV 26378.

Long Term Site Protection

The property owners are currently in negotiations with WV Bunrootis to provide a conservation easement or declaration of restrictive covenants.

APPENDIX A
SITE PHOTOS

Alliance Consulting, Inc.

Engineers Constructors Scientists



APPENDIX B

WVIRT FIELD EVALUATION FORM FOR MITIGATION BANK

**WV Bunrootis, LLC
Kincheloe Site Assessment**



PHOTOGRAPH NO. 1
Stream Channel Overview.



PHOTOGRAPH NO. 2
Channel Overview, Significant Erosion Present.

**WV Bunrootis, LLC
Kincheloe Site Assessment**



PHOTOGRAPH NO. 3
Eroded and Entrenched Channel
Minimal Vegetative Protection.



PHOTOGRAPH NO. 4
Pinched Against Toe of Hill.

**WV Bunrootis, LLC
Kincheloe Site Assessment**



PHOTOGRAPH NO. 5
Minimal Vegetative Protection.



PHOTOGRAPH NO. 6
Heavy Bank Erosion.

**WV Bunrootis, LLC
Kincheloe Site Assessment**



PHOTOGRAPH NO. 7
Site Overview
Looking Downstream.



PHOTOGRAPH NO. 8
Channel Overview.

**WV Bunrootis, LLC
Kincheloe Site Assessment**



PHOTOGRAPH NO. 9
Entrenched and Eroded Bank in Bend.



PHOTOGRAPH NO. 10
Site Overview.

**WV Bunrootis, LLC
Kincheloe Site Assessment**



PHOTOGRAPH NO. 11
Site Overview.



PHOTOGRAPH NO. 12
Looking Downstream.

**WV Bunrootis, LLC
Kincheloe Site Assessment**



PHOTOGRAPH NO. 13
Site Overview
Looking Downstream.



PHOTOGRAPH NO. 14
Site Overview
Looking Downstream

**WV Bunrootis, LLC
Kincheloe Site Assessment**



PHOTOGRAPH NO. 15
Unnamed Tributary Overview.

APPENDIX B

WVIRT FIELD EVALUATION FORM FOR MITIGATION BANK

West Virginia Interagency Review Team Field Evaluation Form for Mitigation Bank Proposals



Proposed Site Location Data:

County:	Coordinates: <small>(NAD 83 datum in decimal degrees)</small>		Watershed Name:	8-Digit HUC Name: <small>(reference map at http://www.lrh.usace.army.mil/permits/)</small>
	Latitude	Longitude		
Harrison, Lewis	80° 34' 22.46"	39° 09' 56.71"	Kincheloe Creek	West Fork 05020002

Site Address:	

Directions to Site:	Refer to Draft Prospectus

Applicant <i>(submitting proposal)</i> :		Primary Property Owner: <i>(In negotiations)</i>	
Name:	WV Bunrootis, LLC	Name:	Ker-chi and Yeewen L. Chang
Address:	400 South Record Street Dallas, Texas 75202	Address:	13416 Cleveland Dr. Rockville, MD 20850

Rights Owned: <small>(check all that apply)</small>	Surface <input checked="" type="checkbox"/>	Mineral <input type="checkbox"/>	Timber <input checked="" type="checkbox"/>	Other <input type="checkbox"/>	Owner YES	Cooperation NO
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Resource, Extent and Form of Mitigation Potential:

Resource Type: <small>(Wetland or Stream)</small>	Resource Classification: <small>(See list on back of this)</small>	Extent of Resources		Primary Form of Mitigation: <small>(See description on the back of this form)</small>
		Acreage (wetland)	Linear Feet (Stream)	
Stream			27,843	L-1 Restoration Primarily
Stream			unknown	Preservation

Watershed and Landscape Considerations:

Watershed Impairments (check all that apply):

Erosion <input checked="" type="checkbox"/>	<input type="checkbox"/> erly Wide	Channelized <input checked="" type="checkbox"/>	Incised <input checked="" type="checkbox"/>	<input type="checkbox"/> bris	<input checked="" type="checkbox"/> lead Cut(s)
Water Quality Impairment	Floodplain Obstruction	Inadequate Passage (Hydraulic)	Meander Removed	<input checked="" type="checkbox"/> nstream Bar(s)	Inadequate Riparian Buffer <input checked="" type="checkbox"/>

Habitat Loss or Conversion Trends (check all that apply):

Development	<input checked="" type="checkbox"/> gging	<input type="checkbox"/> ement/ Lease(s)	<input type="checkbox"/> ning	<input checked="" type="checkbox"/> riculture	<input type="checkbox"/> s Exploration
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Adjacent Land Uses (upstream and downstream):

Development	<input checked="" type="checkbox"/> gging	<input type="checkbox"/> ement/ Lease(s)	Mining Historic	<input checked="" type="checkbox"/> riculture Farm/Pasture	<input type="checkbox"/> s Exploration
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Site Access (check all that apply):

Unlimited Year-round <input checked="" type="checkbox"/>	Limited Access	<input type="checkbox"/> No Road	No Bridge	Trespass Issue	Easement(s)
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*The IRT recommends Applicants/JLF Sponsor attach site map/drawing, conceptual design and photos.

**See reverse side for Functional Improvements, Notes, Submittal Instructions as well as classification and forms of Mitigation reference.

Areas of Functional Improvements Resulting from Proposed ILF Project (check all that apply):

303(d) Listed Stream(s)	Chronic Env. Problems	Aquatic Resources X	Habitat Improvement X	Cultural Sites	Water Quality Goals
Native Trout Stream(s)	Floodplain Management X	Protected/Sensitive Species	Corridor Re-establishment	Terrestrial Resources	Riparian Buffer X
Hydric Soils	Natural Hydrology X	Hydrophytic Vegetation			

*Note: Use "Notes" Section below to describe the importance and intensity of the proposed improvement(s).

**Examples of projects generally found acceptable include: full-scale restoration in terms of dimension, pattern and profile; day-lighting streams; and removing stream and wetland encroachments. The goal is to restore/enhance the physical, chemical and/or biological integrity of aquatic resources through implementing natural stream (or wetland) design concepts in accordance with a watershed-based approach.

Notes (attach separate sheet if necessary) :

Submittal Instructions and Contacts:

Email: michael.e.hatten@usace.army.mil; karen.k.kochenbach@usace.army.mil

Postal Mail: (see below)

[For Projects in Huntington District]

Mr. Michael Hatten
 U.S. Army Corps of Engineers
 502 Eighth Street
 Huntington, WV 25701
 304-399-5710

[For Projects in Pittsburgh District]

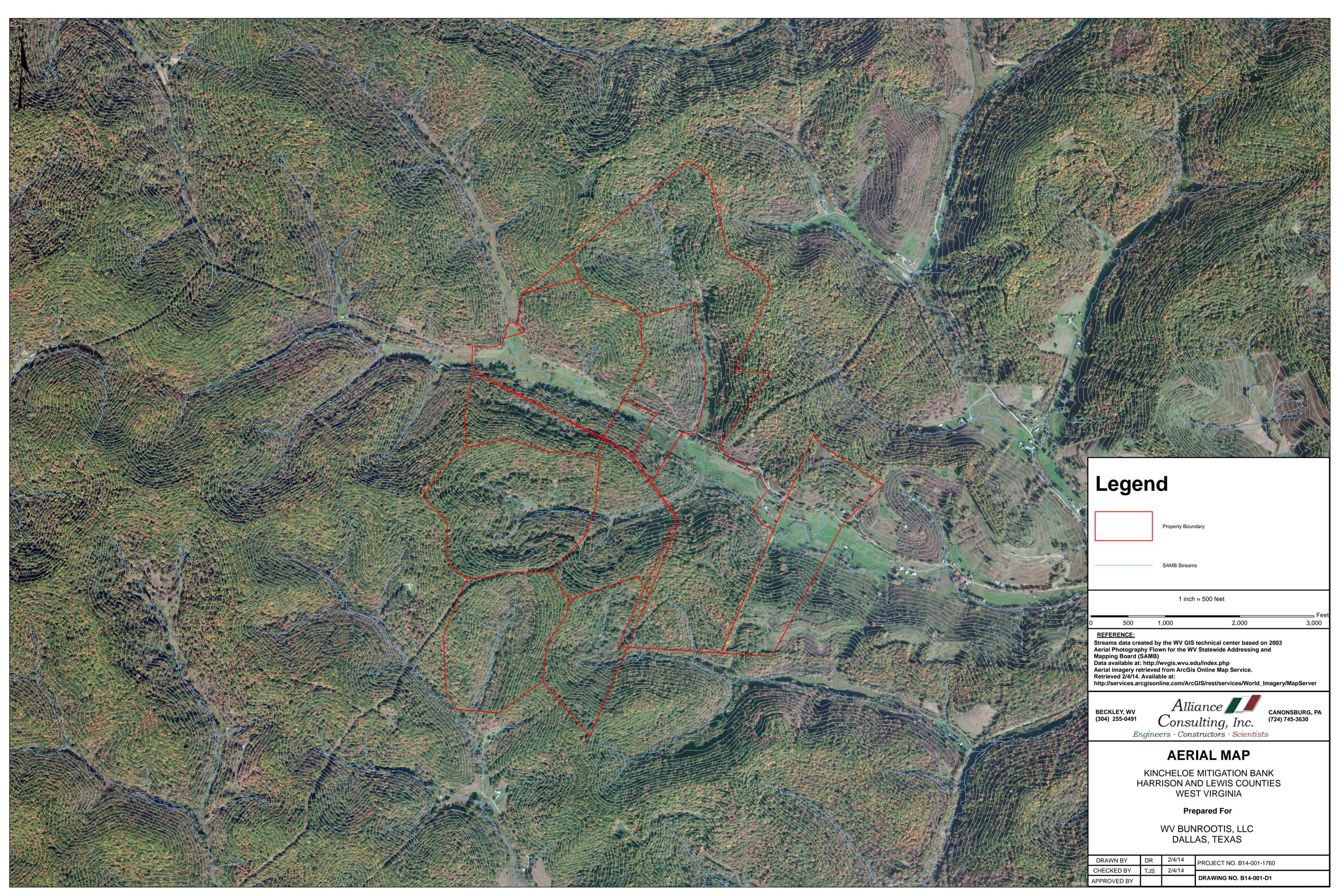
Ms. Karen Kochenbach
 U.S. Army Corps of Engineers
 1000 Liberty Avenue
 Pittsburgh, PA 15222-4186
 412-395-7361

Resource Classification (List):

Stream-Ephemeral	Wetland-Open Water	Wetland-Forested
Stream-Intermittent	Wetland-Emergent	Wetland-Prior Converted (PC)
Stream-Perennial	Wetland-Scrub-Shrub	

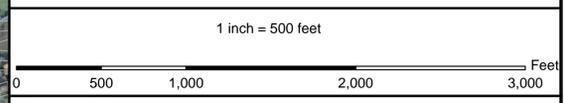
Primary Form of Mitigation (Defined):

Restoration	Restoration is the manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural/historic functions to a former or degraded aquatic resource. Restoration is generally divided into two categories: re-establishment and rehabilitation. Re-establishment focuses upon returning natural/historic functions to a former aquatic resource and Rehabilitation is primarily repairing natural/historic functions to a degraded aquatic resource. Stream Restoration is further classified by the WV IRT, as follows: Stream Restoration L1: FULL EXTENT (e.g. Extensive channel restoration involving dimension, pattern and profile work through re-establishment on impaired moderate and low-gradient perennial and intermittent streams) Stream Restoration L2: MODERATE EXTENT (e.g. Extensive channel restoration generally involving dimension and profile work through re-establishment on impaired moderate and low-gradient perennial and intermittent streams) Stream Restoration L3: FULL EXTENT IN Laterally Contained or Limited Belt Width Channels (e.g. Channel restoration involving dimension, pattern and profile work through re-establishment on impaired high, moderate and low-gradient streams)
Enhancement	The manipulation of the physical, chemical, or biological characteristics of an aquatic resource to heighten, intensify, or improve a specific aquatic resource function(s).
Preservation	The removal of a threat to, or preventing the decline of, aquatic resources by an action in or near those aquatic resources. This includes the perpetual protection of ecologically important aquatic resources and those upland riparian areas adjacent to stream channels or other aquatic resources as necessary to ensure protection and/or enhancement of the aquatic ecosystem.
Establishment	The manipulation of the physical, chemical, or biological characteristics present to develop an aquatic resource that did not previously exist at an upland site. Establishment results in a gain in aquatic resource area and functions.



Legend

-  Property Boundary
-  SAMB Streams



REFERENCE:
 Streams data created by the WV GIS technical center based on 2003 Aerial Photography Flown for the WV Statewide Addressing and Mapping Board (SAMB)
 Data available at: <http://wvgis.wvu.edu/index.php>
 Aerial imagery retrieved from ArcGis Online Map Service. Retrieved 2/4/14. Available at: http://services.arcgisonline.com/ArcGIS/rest/services/World_Imagery/MapServer

BECKLEY, WV (304) 255-0491  CANONSBURG, PA (724) 745-3630
Engineers · Constructors · Scientists

AERIAL MAP
 KINCHELOE MITIGATION BANK
 HARRISON AND LEWIS COUNTIES
 WEST VIRGINIA
 Prepared For
 WV BUNROOTIS, LLC
 DALLAS, TEXAS

DRAWN BY	DR	2/4/14	PROJECT NO. B14-001-1760 DRAWING NO. B14-001-D1
CHECKED BY	TJS	2/4/14	
APPROVED BY			