

INFINITY ENERGY, INC

# U.S. Army Corps of Engineers Pre- Construction Notification

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NATIONWIDE PERMIT APPLICATION

Jon Lawson

12/11/2012

PO BOX 838; MIDDLESBORO, KY 40965

**APPLICATION FOR DEPARTMENT OF THE ARMY PERMIT  
(33 CFR 325)**

**OMB APPROVAL NO. 0710-0003  
EXPIRES: 31 August 2012**

Public reporting burden for this collection of information is estimated to average 11 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Department of Defense, Washington Headquarters, Executive Services and Communications Directorate, Information Management Division and to the Office of Management and Budget, Paperwork Reduction Project (0710-0003). Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. Please DO NOT RETURN your form to either of those addresses. Completed applications must be submitted to the District Engineer having jurisdiction over the location of the proposed activity.

**PRIVACY ACT STATEMENT**

Authorities: Rivers and Harbors Act, Section 10, 33 USC 403; Clean Water Act, Section 404, 33 USC 1344; Marine Protection, Research, and Sanctuaries Act, Section 103, 33 USC 1413; Regulatory Programs of the Corps of Engineers; Final Rule 33 CFR 320-332. Principal Purpose: Information provided on this form will be used in evaluating the application for a permit. Routine Uses: This information may be shared with the Department of Justice and other federal, state, and local government agencies, and the public and may be made available as part of a public notice as required by Federal law. Submission of requested information is voluntary, however, if information is not provided the permit application cannot be evaluated nor can a permit be issued. One set of original drawings or good reproducible copies which show the location and character of the proposed activity must be attached to this application (see sample drawings and instructions) and be submitted to the District Engineer having jurisdiction over the location of the proposed activity. An application that is not completed in full will be returned.

**(ITEMS 1 THRU 4 TO BE FILLED BY THE CORPS)**

|                  |                     |                 |                             |
|------------------|---------------------|-----------------|-----------------------------|
| 1 APPLICATION NO | 2 FIELD OFFICE CODE | 3 DATE RECEIVED | 4 DATE APPLICATION COMPLETE |
|------------------|---------------------|-----------------|-----------------------------|

**(ITEMS BELOW TO BE FILLED BY APPLICANT)**

|   |  |  |  |  |  |
|---|--|--|--|--|--|
| 5 APPLICANT'S NAME<br>First - JON Middle - Last - LAWSON<br>Company - INFINITY ENERGY INC<br>E-mail Address - JON.LAWSON@JUSTICECORPORATION.COM |  |  | 8 AUTHORIZED AGENT'S NAME AND TITLE (an agent is not required)<br>First - N/A Middle - Last -<br>Company -<br>E-mail Address - |  |  |
| 6 APPLICANT'S ADDRESS<br>Address - NORTH 19TH STREET EXTENSION, PO BOX 838<br>City - MIDDLESBORO State - KY Zip - 40965 Country - US            |  |  | 9 AGENT'S ADDRESS<br>Address -<br>City - State - Zip - Country -   |  |  |
| 7 APPLICANT'S PHONE NOS W/AREA CODE<br>a Residence 606-573-4299 b Business 276-328-3421 c Fax 606-573-6000                                      |  |  | 10 AGENT'S PHONE NOS W/AREA CODE<br>a Residence b Business c Fax   |  |  |

**STATEMENT OF AUTHORIZATION**

11 I hereby authorize, N/A to act in my behalf as my agent in the processing of this application and to furnish, upon request, supplemental information in support of this permit application.

APPLICANT'S SIGNATURE

DATE

**NAME, LOCATION, AND DESCRIPTION OF PROJECT OR ACTIVITY**

|   |   |
|---|---|
| 12 PROJECT NAME OR TITLE (see instructions)<br>INFINITY #4  |   |
| 13 NAME OF WATERBODY, IF KNOWN (if applicable)<br>Opossum Hollow of Laurel Fork of Greasy Creek                                 | 14. PROJECT STREET ADDRESS (if applicable)<br>Address N/A<br>City - State - Zip - |
| 15 LOCATION OF PROJECT<br>Latitude: °N 36-55-36<br>Longitude: °W 83-20-14   |   |
| 16 OTHER LOCATION DESCRIPTIONS, IF KNOWN (see instructions)<br>State Tax Parcel ID Municipality<br>Section - Township - Range - |   |

17 DIRECTIONS TO THE SITE  
TAKE HAL ROGERS PKWY FROM HAZARD KY KDMM OFFICE FOR APPROXIMATELY 14 4 MILES. TURN LEFT ONTO KY HWY 118 FOR 3 5 MILES; TURN LEFT ONTO US-421 ABOUT 20 MILES UNTIL INTERSECT W/ US-221; BARE LEFT APPROX 2 2 MILES TO INTERSECT WITH KY HWY 2009 TRAVEL APPROX 1 6 MILES TO HAULROAD 'D' ON LEFT OF PERMIT 848-0264

18 Nature of Activity (Description of project include all features)

SEDIMENT CONTROL VIA IN-STREAM SEDIMENT STRUCTURE.

19 Project Purpose (Describe the reason or purpose of the project, see instructions)

CONSTRUCTION OF ONE TEMPORARY 'IN-STREAM' SEDIMENT CONTROL POND TO CONTROL DRAINAGE FROM SURFACE AND AUGER/HIGHWALL MINING OPERATION.

USE BLOCKS 20-23 IF DREDGED AND/OR FILL MATERIAL IS TO BE DISCHARGED

20 Reason(s) for Discharge

SEDIMENT STRUCTURE SS-1 - WILL BE CONSTRUCTED AND UTILIZED TO PROVIDE ADEQUATE DETENTION TIME FOR SEDIMENT COLLECTED VIA RUNOFF FROM THE UPSTREAM DISTURBANCE.

21 Type(s) of Material Being Discharged and the Amount of Each Type in Cubic Yards

| Type<br>Amount in Cubic Yards | Type<br>Amount in Cubic Yards | Type<br>Amount in Cubic Yards |
|-------------------------------|-------------------------------|-------------------------------|
| DURABLE ROCK; 128 CUBIC YARDS |                               |                               |

22 Surface Area in Acres of Wetlands or Other Waters Filled (see instructions)

Acres 0.053 ACRES

Or  
Liner Feet

23 Description of Avoidance, Minimization, and Compensation (see instructions)

PLEASE SEE ATTACHED NARRATIVE.

24 Is Any Portion of the Work Already Complete? Yes  No  IF YES, DESCRIBE THE COMPLETED WORK

SEDIMENT STRUCTURE SS-1 HAS BEEN CONSTRUCTED PER ISSUANCE OF DNR PERMIT 848-0264.

25 Addresses of Adjoining Property Owners, Lessees, Etc., Whose Property Adjoins the Waterbody (If more than can be entered here, please attach a supplemental list)

Address - INFINITY ENERGY, INC. HAS VALID LEASE OR OWNERSHIP RIGHTS FOR THE ENTIRE AREA PROPOSED FOR IMPACT. SAID RIGHTS PROVIDE INFINITY ENERGY, INC. RIGHT OF ENTRY TO EGRESS AND IMPROVE THE SITE AND PERFORM ANY SURFACE OR CONSTRUCTION ACTIVITY AT THE SITE.

City - State - Zip -

26 List of Other Certifications or Approvals/Denials Received from other Federal, State, or Local Agencies for Work Described in This Application

| AGENCY   | TYPE APPROVAL* | IDENTIFICATION NUMBER | DATE APPLIED | DATE APPROVED | DATE DENIED |
|----------|----------------|-----------------------|--------------|---------------|-------------|
| EPPC/DNR | SURFACE/JG     | 848-0264              | 10-28-06     | 12-20-2007    | N/A         |

\* Would include but is not restricted to zoning, building, and flood plain permits

27 Application is hereby made for a permit or permits to authorize the work described in this application. I certify that the information in this application is complete and accurate. I further certify that I possess the authority to undertake the work described herein or am acting as the duly authorized agent of the applicant.


12-11-12
\_\_\_\_\_
\_\_\_\_\_

SIGNATURE OF APPLICANT      DATE      SIGNATURE OF AGENT      DATE

The application must be signed by the person who desires to undertake the proposed activity (applicant) or it may be signed by a duly authorized agent if the statement in block 11 has been filled out and signed

18 U.S.C. Section 1001 provides that Whoever, in any manner within the jurisdiction of any department or agency of the United States knowingly and willfully falsifies, conceals, or covers up any trick, scheme, or disguises a material fact or makes any false, fictitious or fraudulent statements or representations or makes or uses any false writing or document knowing same to contain any false, fictitious or fraudulent statements or entry, shall be fined not more than \$10,000 or imprisoned not more than five years or both.

**General Background**

Infinity Energy, Inc. is submitting this pre-construction notification and additional information to obtain approval for impacts to the waters of the United States. This request will allow one temporary in-stream sediment pond authorized by Kentucky Department of Natural Resources Permit Number 848-0264.

The pond is located in an unnamed tributary to Opossum Hollow. This impact area is in the Opossum Hollow watershed of Laurel Fork of Greasy Creek of the Middle Fork of the Kentucky River in Harlan County, Kentucky. The operation is located in the Bledsoe USGS 7.5 minute quadrangle map. Historic mining in the watershed is prevalent, with some reports dating back 100 years.

A total of 562 linear feet of intermittent stream is requested to be impacted. Sediment Structure “SS-1” has been constructed upon approval of KYDNR permit 848-0264 to control drainage from upstream mining disturbance. Sediment Structure SS-1 is a temporary in-stream sediment control structure. An impact map has been provided in this submittal.

*Project Summary*

| Structure ID              | Type of Impact | Stream Type  | Stream Length | Disturbed Area (ac) | Volume of Material Placed in Stream Bed |
|---------------------------|----------------|--------------|---------------|---------------------|---|
| <b>Sediment Pond SS-1</b> | Direct         | Intermittent | 154           | 0.053               | 128 C.Y.                                |
| <b>Sediment Pond SS-1</b> | Indirect       | Intermittent | 408           | 0.140               | -                                       |

**Request for Review as Nationwide Permit 43**

Proposed mitigation will account for stream impacts within the footprint of Sediment Structure SS-1 in the unnamed tributary to Opossum Hollow. The appropriate course for this type of disturbance is a USACE Nationwide Permit 43. The stream is intermittent and the impact from the sediment structure is temporary. The sediment structure will be in place only until the upstream disturbance has been well vegetated for a minimum of 2 years, per the surface mining regulations.

**Mitigation Plan**

Currently, the impacts have occurred. Therefore, a compensatory mitigation plan includes in-lieu fees with calculated temporal offsets. The in-lieu fees will be purchased following authorization from the Kentucky Department of Fish and Wildlife Resources in-lieu fee program for the Upper Kentucky River service area. Currently, the Upper Kentucky River service area charges \$610/EIU. It is understood that up to a 20% multiplier for cumulative effects will also be included.

Initial background investigations to reflect pre-project stream data from 2008 were not confirmed in the field. In order to adequately project these conditions a representative stream was surveyed in the adjacent area. This data is included in appendix and will be the basis of mitigation calculations.

Habitat from the representative stream was of poor quality. Much like the 2008 survey, steep slopes and historical land uses have increased embeddedness, flow regime, and bank stability. A conductivity value of 792 microSiemens/cm is also a detriment to the final ecological integrity score based on the Eastern Kentucky Stream Assessment Protocol.

*In-lieu fees will be determined after authorization, however an estimated In-lieu fee is as follows:*

|   |
|---|
| <b>ILF = EIUs ( EII score x Cumulative Impacts x Temporal Loss) x \$610</b> |
| <b>0.14 EIU x 562 LF x 1.2 = 94.416 EIU</b>                                 |
| <b>Factor of 3% temporal losses = 106.267 EIU</b>                           |
| <b>Estimated ILF Provided = \$64,822.29 @ \$610/EIU</b>                     |

**REPRESENTATIVE STREAM EVALUATION  
FORMS**

EII Calculation for High Gradient Streams In Eastern Kentucky Coalfield (Version 2002.6)  
 \*\*(Family Level Taxonomy - All Habitats)\*\*

|                               |  |
|-------------------------------|--|
| <b>Project ID:</b>            | Infinity Energy NWP 43                                     |
| <b>Stream/Reach:</b>          | Unnamed Tributary to Opossum Hollow                        |
| <b>Assessment Objectives:</b> | Determine representative stream characteristics pre-impact |

| EII  | Model   |
|------|---|
| NA   | Ecological Integrity Index (MBI + Habitat Integrity + Conductivity) |
| 0.14 | Ecological Integrity Index (Habitat Integrity + Conductivity)       |

>>>>>>  
 Enter quantitative or categorical measure from Field Data Sheet in shaded cells

**RBP Habitat Parameters**

| Variables                          | Measure | Units    |
|------------------------------------|---------|----------|
| 1. Epifaunal Substrate             | 14      | no units |
| 2. Embeddedness                    | 15      | no units |
| 3. Velocity/Depth Regime           | 5       | no units |
| 4. Sediment Deposition             | 10      | no units |
| 5. Channel Flow Status             | 15      | no units |
| 6. Channel Alteration              | 10      | no units |
| 7. Freq. Of Riffles (bends)        | 8       | no units |
| 8. Bank stability (both combined)  | 7       | no units |
| 9. Veg. Protection (both combined) | 14      | no units |
| 10. Riparian Width (both combined) | 9       | no units |

**Total Habitat Score**  no units

**SubIndex**

**Habitat Integrity Index**

**Macroinvertebrate Data - Family Level (All Habitats)**

|                                  |                      |                          |
|----------------------------------|----------------------|--------------------------|
| 11. Family Taxa Richness         | <input type="text"/> | # of taxa sampled        |
| 12. Family EPT Richness          | <input type="text"/> | # of EPT species sampled |
| 13. % Ephemeroptera              | <input type="text"/> | % Mayflies (0-100)       |
| 14. % Chironomidae & Oligochaeta | <input type="text"/> | % Midges & Worms (0-100) |
| 15. mFBI                         | <input type="text"/> | no units                 |

**Macroinvertebrate Bioassessment**  no units

**Conductivity**  microMHOs





Site Photo Unnamed Tributary to Possum Hollow – Representative Station 10/25/12.

Location Map with Aerial Photo



## HABITAT ASSESSMENT DATA SHEET - HIGH GRADIENT STREAMS

Stream Name: Unnamed Trib-Possum Aquatic Sampling Number: 1

Latitude: 36-55-46 Longitude: 83-19-10 (NAD83, DD) Stream Drainage Possum Hollow

Investigators: \_\_\_\_\_

Date: 10/25/2012 Time: 4:00 AM Reason for Survey: Representative Data

Elevation: - State KY County: Harlan

USGS 7.5 Minute Topographic Map: Bledsoe Stream Order: 1

| Habitat Parameter                       | Condition Category  |    |    |    |    |   |    |    |    |    |   |   |   |   |   |   |   |   |   |   |   |
|---|---|----|----|----|----|---|----|----|----|----|---|---|---|---|---|---|---|---|---|---|---|
|   | Optimal   |    |    |    |    | Suboptimal  |    |    |    |    | Marginal  |   |   |   |   | Poor  |   |   |   |   |   |
| 1. Epifaunal Substrate/ Available Cover | Greater than 70% of substrate favorable for epifaunal colonization and fish cover, mix of snags, submerged logs, undercut banks, cobble or other stable habitat and at state to allow full colonization potential (i.e., logs/snags that are not new fall and not transient). |    |    |    |    | 40-70% mix of stable habitat; well-suited for full colonization potential; adequate habitat for maintenance of populations; presence of additional substrate in the form of newfall, but not yet prepared for colonization (may rate at high end of scale). |    |    |    |    | 20-40% mix of stable habitat; habitat availability less than desirable; substrate frequently disturbed or removed.  |   |   |   |   | Less than 20% stable habitat; lack of habitat is obvious; substrate unstable or lacking.  |   |   |   |   |   |
| SCORE                                   | 20  | 19 | 18 | 17 | 16 | 15  | 14 | 13 | 12 | 11 | 10  | 9 | 8 | 7 | 6 | 5   | 4 | 3 | 2 | 1 | 0 |
|   | ○   | ○  | ○  | ○  | ○  | ○   | ○  | ○  | ○  | ○  | ○   | ○ | ○ | ○ | ○ | ○   | ○ | ○ | ○ | ○ | ○ |
| 2. Embeddedness                         | Gravel, cobble, and boulder particles are 0-25% surrounded by fine sediment. Layering of cobble provides diversity of niche space.  |    |    |    |    | Gravel, cobble and boulder particles are 25-50% surrounded by fine sediment.  |    |    |    |    | Gravel, cobble, and boulder particles are 50-75% surrounded by fine sediment.   |   |   |   |   | Gravel, cobble, and boulder particles are more than 75% surrounded by fine sediment.  |   |   |   |   |   |
| SCORE                                   | 20  | 19 | 18 | 17 | 16 | 15  | 14 | 13 | 12 | 11 | 10  | 9 | 8 | 7 | 6 | 5   | 4 | 3 | 2 | 1 | 0 |
|   | ○   | ○  | ○  | ○  | ○  | ○   | ○  | ○  | ○  | ○  | ○   | ○ | ○ | ○ | ○ | ○   | ○ | ○ | ○ | ○ | ○ |
| 3. Velocity/Depth Regime                | All four velocity/depth regimes present (slow-deep, slow-shallow, fast-deep, fast-shallow) (Slow is < 0.3 m/s, deep is > 0.5 m).  |    |    |    |    | Only 3 of the 4 regimes present (if fast-shallow is missing, score lower than if missing other regimes).  |    |    |    |    | Only 2 of the 4 habitat regimes present (if fast-shallow or slow-shallow are missing, score low).   |   |   |   |   | Dominated by 1 velocity/depth regime (usually slow-deep).   |   |   |   |   |   |
| SCORE                                   | 20  | 19 | 18 | 17 | 16 | 15  | 14 | 13 | 12 | 11 | 10  | 9 | 8 | 7 | 6 | 5   | 4 | 3 | 2 | 1 | 0 |
|   | ○   | ○  | ○  | ○  | ○  | ○   | ○  | ○  | ○  | ○  | ○   | ○ | ○ | ○ | ○ | ○   | ○ | ○ | ○ | ○ | ○ |
| 4. Sediment Deposition                  | Little or no enlargement of islands or point bars and less than 5% (<20% for low-gradient streams) of the bottom affected by sediment deposition.   |    |    |    |    | Some new increase in bar formation, mostly from gravel, sand or fine sediment; 5-30% (20-50% for low-gradient) of the bottom affected; slight deposition in pools.  |    |    |    |    | Moderate deposition of new gravel, sand or fine sediment on old and new bars; 30-50% (50-80% for low-gradient) of the bottom affected; sediment deposits at obstructions, constructions, and bends; moderate deposition of pools prevalent. |   |   |   |   | Heavy deposits of fine material, increased bar development; more than 50% (80% for low-gradient) of the bottom changing frequently; pools almost absent due to substantial sediment deposition. |   |   |   |   |   |
| SCORE                                   | 20  | 19 | 18 | 17 | 16 | 15  | 14 | 13 | 12 | 11 | 10  | 9 | 8 | 7 | 6 | 5   | 4 | 3 | 2 | 1 | 0 |
|   | ○   | ○  | ○  | ○  | ○  | ○   | ○  | ○  | ○  | ○  | ○   | ○ | ○ | ○ | ○ | ○   | ○ | ○ | ○ | ○ | ○ |
| 5. Channel Flow Status                  | Water reaches base of both lower banks, and minimal amount of channel substrate is exposed.   |    |    |    |    | Water fills >75% of the available channel; or <25% of channel substrate is exposed.   |    |    |    |    | Water Fills 25-75% of the available channel, and/or riffle substrates are mostly exposed.   |   |   |   |   | Very little water in channel and mostly present as standing pools.  |   |   |   |   |   |
| SCORE                                   | 20  | 19 | 18 | 17 | 16 | 15  | 14 | 13 | 12 | 11 | 10  | 9 | 8 | 7 | 6 | 5   | 4 | 3 | 2 | 1 | 0 |
|   | ○   | ○  | ○  | ○  | ○  | ○   | ○  | ○  | ○  | ○  | ○   | ○ | ○ | ○ | ○ | ○   | ○ | ○ | ○ | ○ | ○ |

|  |   |   |  |  |         |         |         |         |         |         |         |        |        |        |        |        |        |        |        |        |        |
|--|---|---|--|--|---------|---------|---------|---------|---------|---------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 6. Channel Alteration  | Channelization or dredging absent or minimal; stream with normal pattern  | Some channelization present, usually in areas of bridge abutments; evidence of past channelization, i.e., dredging, (greater than past 20 yr) may be present, but recent channelization is not present  | Channelization may be extensive; embankments or shoring structures present on both banks; and 40 to 80% of stream reach channelized and disrupted  | Banks shored with gabion or cement; over 80% of the stream reach channelized and disrupted. Instream habitat greatly altered or removed entirely   |         |         |         |         |         |         |         |        |        |        |        |        |        |        |        |        |        |
| SCORE  | 20<br>○   | 19<br>○   | 18<br>○  | 17<br>○  | 16<br>○ | 15<br>○ | 14<br>○ | 13<br>○ | 12<br>○ | 11<br>○ | 10<br>● | 9<br>○ | 8<br>○ | 7<br>○ | 6<br>○ | 5<br>○ | 4<br>○ | 3<br>○ | 2<br>○ | 1<br>○ | 0<br>○ |
| 7. Frequently of Riffles (or bends)                                | Occurrence of riffles relatively frequent; ratio of distance between riffles divided by width of the stream <7:1 (generally 5 to 7); variety of habitat is key in streams where riffles are continuous, placement of boulders or other large, natural obstruction is important        | Occurrence of riffles infrequent; distance between riffles divided by the width of the stream is between 7 to 15  | Occasional riffle or bend; bottom contours provide some habitat; distance between riffles, divided by the width of the stream is between 15 to 25  | Generally all flat water or shallow riffles; poor habitat; distance between riffles divided by the width of the stream is a ratio of >25.  |         |         |         |         |         |         |         |        |        |        |        |        |        |        |        |        |        |
| SCORE  | 20<br>○   | 19<br>○   | 18<br>○  | 17<br>○  | 16<br>○ | 15<br>○ | 14<br>○ | 13<br>○ | 12<br>○ | 11<br>○ | 10<br>○ | 9<br>○ | 8<br>● | 7<br>○ | 6<br>○ | 5<br>○ | 4<br>○ | 3<br>○ | 2<br>○ | 1<br>○ | 0<br>○ |
| 8. Bank Stability (score each bank)                                | Banks stable; evidence of erosion or bank failure absent or minimal; little potential for future problems <5% of bank affected.   | Moderately stable; infrequent, small areas of erosion mostly healed over 5-30% of bank in reach has areas of erosion.   | Moderately unstable; 30-60% of bank in reach has areas of erosion; high erosion potential during floods  | Unstable; many eroded areas; Araw@ areas frequent along straight sections and bends; obvious bank sloughing; 60-100% of bank has erosional scars   |         |         |         |         |         |         |         |        |        |        |        |        |        |        |        |        |        |
| SCORE (LB)   | Left Bank   | 10<br>○   | 9<br>○   | 8<br>○   | 7<br>○  | 6<br>○  | 5<br>○  | 4<br>○  | 3<br>●  | 2<br>○  | 1<br>○  | 0<br>○ |        |        |        |        |        |        |        |        |        |
| SCORE (RB)   | Right Bank  | 10<br>○   | 9<br>○   | 8<br>○   | 7<br>○  | 6<br>○  | 5<br>○  | 4<br>●  | 3<br>○  | 2<br>○  | 1<br>○  | 0<br>○ |        |        |        |        |        |        |        |        |        |
| 9. Vegetative Protection (score each bank)                         | More than 90% of the stream bank surfaces and immediate riparian zone covered by native vegetation, including trees, understory shrubs, or nonwoody macrophytes; vegetative disruption through grazing or mowing minimal or not evident; almost all plants allowed to grow naturally. | 70-90% of the stream banks surfaces covered by native vegetation, but one class of plants is not well-represented; disruption evident but not affecting full plant growth potential to any great extent; more than one-half of the potential plant stubble height remaining | 50-70% of the stream banks surfaces covered by vegetation; disruption obvious; patches of bare soil or closely cropped vegetation common; less than one-half of the potential plant stubble height remaining | Less than 50% of the stream banks surfaces covered by vegetation; disruption of stream banks vegetation is very high; vegetation has been removed to 5 centimeters or less in average stubble height |         |         |         |         |         |         |         |        |        |        |        |        |        |        |        |        |        |
| SCORE (LB)   | Left Bank   | 10<br>○   | 9<br>○   | 8<br>○   | 7<br>●  | 6<br>○  | 5<br>○  | 4<br>○  | 3<br>○  | 2<br>○  | 1<br>○  | 0<br>○ |        |        |        |        |        |        |        |        |        |
| SCORE (RB)   | Right Bank  | 10<br>○   | 9<br>○   | 8<br>○   | 7<br>●  | 6<br>○  | 5<br>○  | 4<br>○  | 3<br>○  | 2<br>○  | 1<br>○  | 0<br>○ |        |        |        |        |        |        |        |        |        |
| 10. Riparian Vegetative Zone Width (score each bank riparian zone) | Width of riparian zone >18 meters; human activities (i.e., parking lots, roadbeds, clear-cuts, lawns, or crops) have not impacted zone.   | Width of riparian zone 12-18 meters; human activities have impacted zone only minimally.  | Width of riparian zone 6-12 meters; human activities have impacted zone a great deal.  | Width of riparian zone <6 meters; little or no riparian vegetation due to human activities.  |         |         |         |         |         |         |         |        |        |        |        |        |        |        |        |        |        |
| SCORE (LB)   | Left Bank   | 10<br>○   | 9<br>○   | 8<br>○   | 7<br>○  | 6<br>○  | 5<br>○  | 4<br>●  | 3<br>○  | 2<br>○  | 1<br>○  | 0<br>○ |        |        |        |        |        |        |        |        |        |
| SCORE (RB)   | Right Bank  | 10<br>○   | 9<br>○   | 8<br>○   | 7<br>○  | 6<br>○  | 5<br>●  | 4<br>○  | 3<br>○  | 2<br>○  | 1<br>○  | 0<br>○ |        |        |        |        |        |        |        |        |        |

TOTAL SCORE 108

Habitat Quality:

Fully Supporting

Supporting/Threatened

# **JURISDICTIONAL DETERMINATION FORM**

**PRELIMINARY JURISDICTIONAL DETERMINATION FORM**

**BACKGROUND INFORMATION**

**A. REPORT COMPLETION DATE FOR PRELIMINARY JURISDICTIONAL DETERMINATION (JD): 23 October 2012**

**B. NAME AND ADDRESS OF PERSON REQUESTING PRELIMINARY JD:**

Jon Lawson  
Southern Coal Corporation  
5957 Windswept Blvd.  
Wise, VA 24293

**C. DISTRICT OFFICE, FILE NAME, AND NUMBER:**

LRL-2008-918 - Infinity Energy 848-0264

**D. PROJECT LOCATION(S) AND BACKGROUND INFORMATION:  
(USE THE ATTACHED TABLE TO DOCUMENT MULTIPLE WATERBODIES AT DIFFERENT SITES)**

State: KY County/parish/borough: Harlan City: Bledsoe  
Center coordinates of site (lat/long in degree decimal format): Lat.  
36.9263888° N, Long. 83.337222° W.

Universal Transverse Mercator:

Name of nearest waterbody: Opossum Hollow

Identify (estimate) amount of waters in the review area:

Non-wetland waters: 600 linear feet: width (ft) and/or acres.

Cowardin Class: Riverine

Stream Flow: Intermittent

Wetlands: acres.

Cowardin Class:

Name of any water bodies on the site that have been identified as Section 10 waters:

Tidal:

Non-Tidal:

**E. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):**

Office (Desk) Determination. Date:

Field Determination. Date(s): 8/12/2008

1. The Corps of Engineers believes that there may be jurisdictional waters of the United States on the subject site, and the permit applicant or other affected party who requested this preliminary JD is hereby advised of his or her option to

request and obtain an approved jurisdictional determination (JD) for that site. Nevertheless, the permit applicant or other person who requested this preliminary JD has declined to exercise the option to obtain an approved JD in this instance and at this time.

2. In any circumstance where a permit applicant obtains an individual permit, or a Nationwide General Permit (NWP) or other general permit verification requiring "pre-construction notification" (PCN), or requests verification for a non-reporting NWP or other general permit, and the permit applicant has not requested an approved JD for the activity, the permit applicant is hereby made aware of the following: (1) the permit applicant has elected to seek a permit authorization based on a preliminary JD, which does not make an official determination of jurisdictional waters; (2) that the applicant has the option to request an approved JD before accepting the terms and conditions of the permit authorization, and that basing a permit authorization on an approved JD could possibly result in less compensatory mitigation being required or different special conditions; (3) that the applicant has the right to request an individual permit rather than accepting the terms and conditions of the NWP or other general permit authorization; (4) that the applicant can accept a permit authorization and thereby agree to comply with all the terms and conditions of that permit, including whatever mitigation requirements the Corps has determined to be necessary; (5) that undertaking any activity in reliance upon the subject permit authorization without requesting an approved JD constitutes the applicant's acceptance of the use of the preliminary JD, but that either form of JD will be processed as soon as is practicable; (6) accepting a permit authorization (e.g., signing a proffered individual permit) or undertaking any activity in reliance on any form of Corps permit authorization based on a preliminary JD constitutes agreement that all wetlands and other water bodies on the site affected in any way by that activity are jurisdictional waters of the United States, and precludes any challenge to such jurisdiction in any administrative or judicial compliance or enforcement action, or in any administrative appeal or in any Federal court; and (7) whether the applicant elects to use either an approved JD or a preliminary JD, that JD will be processed as soon as is practicable. Further, an approved JD, a proffered individual permit (and all terms and conditions contained therein), or individual permit denial can be administratively appealed pursuant to 33 C.F.R. Part 331, and that in any administrative appeal, jurisdictional issues can be raised (see 33 C.F.R. 331.5(a)(2)). If, during that administrative appeal, it becomes necessary to make an official determination whether CWA jurisdiction exists over a site, or to provide an official delineation of jurisdictional waters on the site, the Corps will provide an approved JD to accomplish that result, as soon as is practicable. This preliminary JD finds that there "may be" waters of the United States on the subject project site, and identifies all aquatic features on the site that could be affected by the proposed activity, based on the following information:

**SUPPORTING DATA. Data reviewed for preliminary JD (check all that apply**

- checked items should be included in case file and, where checked and requested, appropriately reference sources below):

- Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant:
  - Data sheets prepared/submitted by or on behalf of the applicant/consultant.
    - Office concurs with data sheets/delineation report.
    - Office does not concur with data sheets/delineation report.
  - Data sheets prepared by the Corps:
  - Corps navigable waters' study:
  - U.S. Geological Survey Hydrologic Atlas:
    - USGS NHD data.
    - USGS 8 and 12 digit HUC maps.
  - U.S. Geological Survey map(s). Cite scale & quad name: KY-BLEDSOE 1:24K.
  - USDA Natural Resources Conservation Service Soil Survey. Citation:
- National wetlands inventory map(s). Cite name:
- State/Local wetland inventory map(s):
- FEMA/FIRM maps:
- 100-year Floodplain Elevation is: (National Geodetic Vertical Datum of 1929)
- Photographs:  Aerial (Name & Date):  
or  Other (Name & Date):
- Previous determination(s). File no. and date of response letter:
- Other information (please specify):

**IMPORTANT NOTE: The information recorded on this form has not necessarily been verified by the Corps and should not be relied upon for later jurisdictional determinations.**

\_\_\_\_\_  
Signature and date of  
Regulatory Project Manager  
(REQUIRED)

\_\_\_\_\_  
Signature and date of  
person requesting preliminary JD  
(REQUIRED, unless obtaining  
the signature is impracticable)

SAMPLE

| Site number | Latitude | Longitude | Cowardin Class | Estimated amount of aquatic resource in review area | Class of aquatic resource |
|-------------|----------|-----------|----------------|---|---------------------------|
| SS-1        | 36.92767 | -83.32463 | R4             | 600   | Non-section 10 non tidal  |
|             |          |           |                |   |                           |
|             |          |           |                |   |                           |
|             |          |           |                |   |                           |
|             |          |           |                |   |                           |
|             |          |           |                |   |                           |

**EXISTING DNR PERMIT FACE SHEET**

# Surface Coal Mining and Reclamation Operations Permit



Department for Natural Resources

INFINITY ENERGY INC  
 PO BOX 915  
 LEWIS BUILDING MAIN ST  
 HYDEN KY 41749

This permit is issued based on ownership and control information contained in the permit application. The permittee shall notify the Division of Mine Permits in writing of any change in officers, directors, persons performing functions similar to directors, stockholders owning ten percent (10%) or more of any class of voting stock, or addresses on the permit or other persons listed above. Written notification shall be made within thirty (30) days of such changes. After notifying the Division of such changes in writing, the permittee shall make all necessary changes in the permit application on forms supplied by the Division. The Department for Natural Resources hereby grants the above-named operator a permit to engage in surface coal mining and reclamation operations. This permit has been issued under the provisions of KRS Chapter 350 and regulations promulgated pursuant thereto. Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses or approvals required by the Cabinet and/or other state, federal and local agencies. Conformance with all such laws and regulations is the responsibility of the permittee. Further, this permit is subject to any conditions and operating limitations specified below.

**A. PERMIT ACTION**

(1) This permit is re-issued to remove condition number F(1) on the permit issued 11/27/2007, concerning no coal removal since the applicant has provided MSHA and the Office of Mine Safety and Licensing information to the Division.

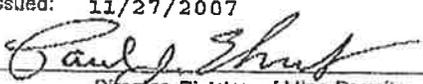
**B. POST MINING LAND USE**

(1) Approval is granted for the following post mining land use(s):

| Land Use          | Acres  |
|-------------------|--------|
| Fish and Wildlife | 400.71 |

(OVER)

No deviation from the plans and specifications submitted with your application or the conditions specified above is permitted unless previously authorized in writing by the Division of Mine Permits. At any time the terms and conditions contained in this permit are violated it shall become null and void. All rights of inspection by representatives of the Department for Natural Resources are reserved. Receipt of this permit and bond amount specified below is hereby acknowledged.

|                  |                       |  |                            |
|------------------|-----------------------|--|----------------------------|
| Major Watershed: | Kentucky River        | Effective Date:  | 12/20/2007                 |
| Legal Structure: | Corporation           | Expiration Date:   | 11/27/2012                 |
| Permit Fee:      | N/A                   | Type of Operation:   | Surface Area/Contour/Auger |
| Bond Type:       | LOC                   | County:  | Harlan                     |
| Bond Amount:     | \$165,800             | Acres:   | 469.07                     |
| Bond Number:     | See Condition No. E-1 | Issued:  | 11/27/2007                 |
| Permit Number:   | 848-0264              | <br>Director, Division of Mine Permits |                            |



C. GENERAL

- (1) Disposal of hazardous waste and solid waste other than "coal mining solid waste" is prohibited on the permit area unless a permit is obtained from the Division of Waste Management.
- (2) The permittee must provide written notification to all property owners and residents overlying this operation at least three (3) months prior to any mining beneath their properties in accordance with 405 KAR 18:210, Section 2. Any property owner or resident who cannot be afforded the full three (3) months notice due to their close proximity to current underground mining activities must receive written notification of such activities within thirty (30) days after the effective date of this permit.
- (3) During backfilling and grading the operator shall apply and loosely grade the final surface layer in accordance with RAM #124 as described in the original permit application.
- (4) As required by the Indiana Bat Protection and Enhancement Plan, trees can only be removed from November 15 to March 31. If it is necessary to remove trees between April 01 to November 14, DNR and USFWS must be notified and approval obtained before tree removal can occur.

D. WAIVERS / VARIANCES

- (1) Approval is granted for alternate contemporaneous reclamation specifications as justified in the permit application. The permittee has paid supplemental assurance in the amount of \$0 (zero) and is required to pay a total of \$200,000 in payments of \$50,000 as per the payment schedule in the original application.
- (2) A variance is granted allowing surface disturbance operations within 100 feet of Opossum Hollow stream.
- (3) The variance request included in the original permit application to be within 100' of Daws Branch County Road (CR-351) and KY HWY 2009 was deemed unnecessary by the Department. Therefore the reader of the permit application is to ignore the request contained in items 11.4, 11.5, and 33.5 of the application. This is valid only for the proposal in the original permit application. The Department will re-evaluate the need for the variance on any subsequent applications for revisions or amendments to this permit.
- (4) To address the undermining of silt structure 503 on permit 048-0234, the applicant has agreed that no mining activities will be conducted within 300 feet of the structure until silt structure #1 of this application can be utilized for sediment control.
- (5) Due to the structure height of silt structures #1 and #2 exceeding 25 feet from the downstream toe, the structures cannot be approved as permanent unless a foundation investigation is conducted.

E. BOND AND ACREAGE DETAIL

(1) This permit is issued for 400.71 acres of surface disturbance (of which 356.71 acres overlie underground/auger area) and 425.07 acres of underground/auger operations for a total of 469.07 acres divided into 71 increments. The increments currently bonded are listed below:

| Increment<br>Number | Surface                |                        | Bond<br>Amount | Bond<br>Number | Acreage<br>Fee |
|---------------------|------------------------|------------------------|----------------|----------------|----------------|
|                     | Disturbance<br>Acreage | Underground<br>Acreage |                |                |                |
| 1                   | 3.48                   | 0.0                    | \$ 3,500       | 80003033       | \$300          |
| 2                   | 0.61                   | 0.0                    | \$ 600         | 80003033       | \$ 75          |
| 3                   | 4.78                   | 0.0                    | \$ 4,800       | 80003033       | \$375          |
| 7                   | 2.06                   | 425.07*                | \$ 6,300       | 80003033       | \$225          |
| 29                  | 3.86                   | 0.0                    | \$11,800       | 80003033       | \$300          |
| 30                  | 2.49                   | 0.0                    | \$ 8,300       | 80003033       | \$225          |
| 31                  | 5.48                   | 0.0                    | \$16,700       | 80003033       | \$450          |
| 32                  | 12.65                  | 0.0                    | \$38,600       | 80003033       | \$975          |
| 33                  | 12.38                  | 0.0                    | \$37,800       | 80003033       | \$975          |
| 34                  | 4.30                   | 0.0                    | \$14,400       | 80003033       | \$375          |
| 49                  | 3.56                   | 0.0                    | \$10,900       | 80003033       | \$300          |
| 50                  | 2.69                   | 0.0                    | \$ 8,200       | 80003033       | \$225          |
| 51                  | 1.27                   | 0.0                    | \$ 3,900       | 80003033       | \$150          |

The permittee shall not conduct any surface coal mining and reclamation operations on other increments of the permit area until the full bond amount and acreage fees have been filed for that increment.

\*For administrative purposes auger acreage has been shown only in Increment #7, but is understood that augering activities will occur in other increments that have the mining acreage in the 5A, 7 and 8 coal seams.

F. VIOLATION DETAIL

N/A

# IMPACT MAP