

From: [Valerie Clarkston](#)
To: [Elizabeth Stout \(elizabeth_stout@fws.gov\)](#); [Lennon, Tiernan \(tiernan_lennon@fws.gov\)](#)
Cc: [Taina Pankiewicz](#); [Daniel Judy](#)
Subject: MVP - IPaC RTE Species List
Date: Thursday, November 13, 2014 4:34:05 PM
Attachments: [MVP_Rev3-2_North.pdf](#)
[MVP_Rev3-2_South.pdf](#)
[MVPRoute_Rev3v2_20141001.zip](#)

Hi Liz and Tiernan,

Attached are the species lists provided by IPaC for the proposed MVP Project as well as the shapefile of its current route. Are you still willing to verify the accuracy of these results in WV, especially with regards to the plants?

With your permission, I would like to include this email and your response within the Project's correspondence record.

Thank you,

Valerie



Valerie Clarkston

Scientist

Environmental Solutions & Innovations, Inc.
4525 Este Avenue | Cincinnati, Ohio 45232 | USA
t: 513.451.1777 f: 513.451.3321 c: 513.382.0925
vclarkston@envsi.com | www



U.S. Fish and Wildlife Service

Trust Resources List

This resource list is to be used for planning purposes only — it is not an official species list.

Endangered Species Act species list information for your project is available online and listed below for the following FWS Field Offices:

West Virginia Ecological Services Field Office
694 BEVERLY PIKE
ELKINS, WV 26241
(304) 636-6586
<http://www.fws.gov/westvirginiafieldoffice/>

Project Name:

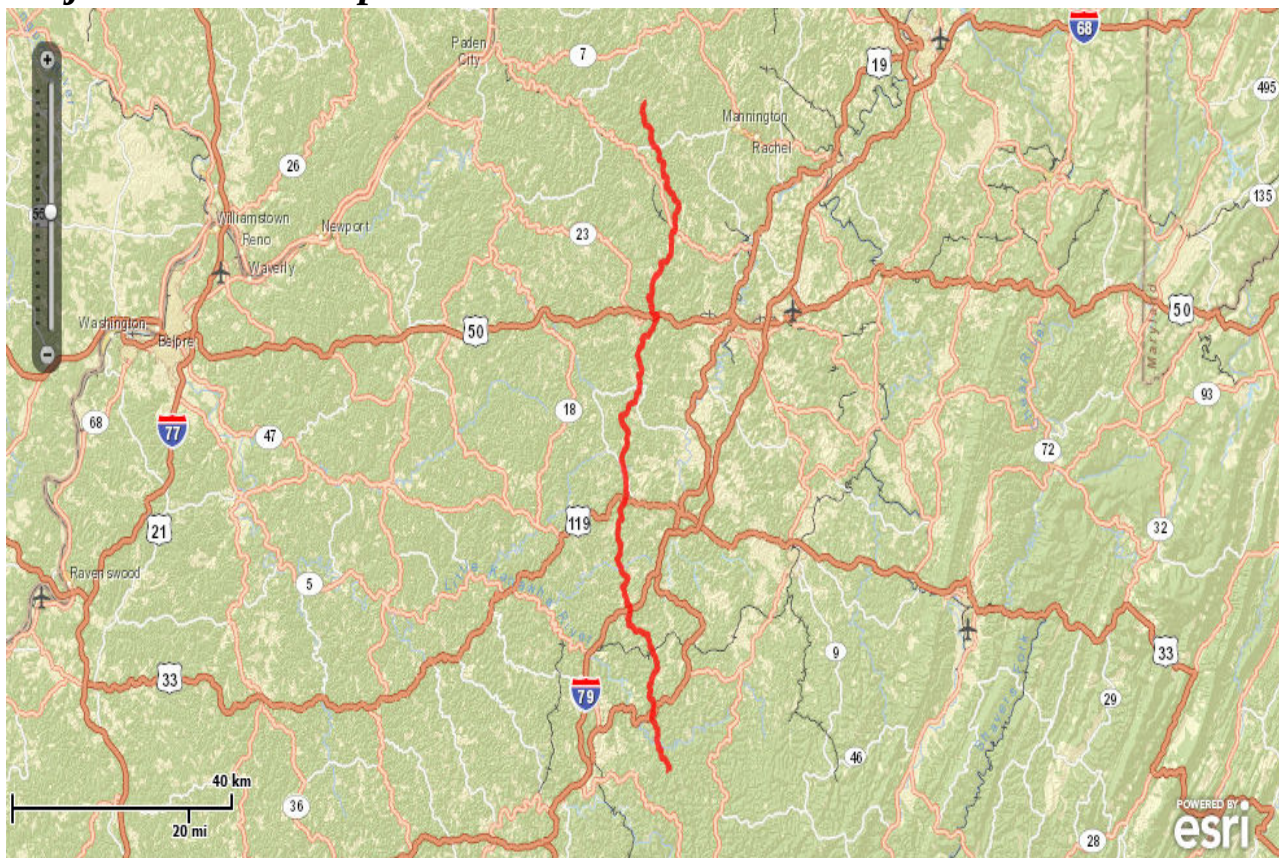
MVP_REV3-2_North



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Project Location Map:



Project Counties:

Braxton, WV | Doddridge, WV | Harrison, WV | Lewis, WV | Wetzel, WV



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Geographic coordinates (Open Geospatial Consortium Well-Known Text, NAD83):

MULTIPOLYGON (((-80.4912993 38.7067642, -80.4913016 38.7067713, -80.4913012 38.7067788, -80.491298 38.7067856, -80.4899452 38.7086669, -80.4899361 38.7086739, -80.4885029 38.7092216, -80.4892116 38.7113088, -80.4920081 38.7133104, -80.492013 38.7133154, -80.4920159 38.7133217, -80.4920164 38.7133287, -80.4918835 38.7146642, -80.494233 38.7171229, -80.4961955 38.7182815, -80.4962005 38.7182857, -80.4962039 38.7182914, -80.4962053 38.7182979, -80.49625 38.7193872, -80.4969455 38.7202174, -80.4979389 38.7207934, -80.4979396 38.7207938, -80.4989708 38.7214458, -80.4998644 38.7218166, -80.5033513 38.7229181, -80.5052015 38.7233877, -80.5052071 38.7233901, -80.5052118 38.7233941, -80.5064475 38.7248296, -80.5064509 38.7248352, -80.5064523 38.7248416, -80.5065981 38.7277456, -80.5065971 38.7277529, -80.5061978 38.7289607, -80.5061128 38.7308482, -80.5064304 38.7323584, -80.5064307 38.7323602, -80.5065658 38.7335368, -80.5071911 38.7338145, -80.509801 38.7340871, -80.5098033 38.7340875, -80.5108975 38.7343337, -80.5109008 38.7343348, -80.5123316 38.7349341, -80.5123379 38.7349382, -80.5123422 38.7349443, -80.5123439 38.7349516, -80.5123946 38.7360926, -80.5123929 38.7361016, -80.5123873 38.7361089, -80.5117688 38.7366186, -80.5114336 38.7376005, -80.5111651 38.73883, -80.512837 38.7396116, -80.5128428 38.7396158, -80.5128469 38.7396218, -80.5128485 38.7396288, -80.5128962 38.740668, -80.5128962 38.74067, -80.5128078 38.7422391, -80.5156152 38.7451703, -80.5156185 38.7451749, -80.5166052 38.7470687, -80.5166074 38.7470756, -80.5166069 38.7470829, -80.5166038 38.7470894, -80.5165986 38.7470945, -80.5158362 38.747605, -80.515748 38.7476911, -80.5149157 38.7487669, -80.5139845 38.7516426, -80.5139843 38.7516433, -80.5130884 38.7540766, -80.5136798 38.7551314, -80.5154604 38.7564144, -80.515466 38.7564205, -80.5154686 38.7564284, -80.5154677 38.7564367, -80.5154636 38.7564439, -80.5133701 38.7587902, -80.5139984 38.760143, -80.5149546 38.7604157, -80.5149627 38.7604202, -80.5168507 38.7621731, -80.5183241 38.7633195, -80.5183293 38.7633256, -80.5188429 38.764257, -80.5196227 38.765164, -80.5196268 38.7651718, -80.5196271 38.7651808, -80.5191621 38.7676144, -80.5200236 38.7684971, -80.5212187 38.7687347, -80.5212232 38.7687361, -80.5223194 38.7692402, -80.522323 38.7692424, -80.5238295 38.7703782, -80.5238329 38.7703815, -80.5252281 38.7720785, -80.5252302 38.7720815, -80.5264786 38.7743399, -80.5264811 38.7743499, -80.526449 38.7765227, -80.5265797 38.7783705, -80.5265785 38.7783788, -80.526574 38.7783859, -80.525927 38.7790473, -80.525921 38.7790515, -80.5253862 38.7792968, -80.5253819 38.7792982, -80.5243414 38.7795103, -80.523054 38.7798686, -80.523031 38.7799731, -80.5230298 38.7799769, -80.5225973 38.7809538, -80.5230709 38.7817984, -80.5238537 38.7828322, -80.5238569 38.7828384, -80.5244246 38.7846875, -80.5244254 38.784695, -80.5242832 38.7864812, -80.5242817 38.7864875, -80.5242782 38.7864929, -80.523311 38.7875791, -80.522303 38.7890281, -80.5219363 38.7911505, -80.5224042 38.7918911, -80.522405 38.7918924, -80.523332 38.7936445, -80.5233341 38.7936511, -80.5236357 38.7957722, -80.5236346 38.7957822, -80.5231611 38.7970072, -80.5244939 38.7980549, -80.5244968 38.7980577, -80.5252036 38.7988942, -80.5268415 38.7988604, -80.5287899 38.7987087, -80.5287966 38.7987093, -80.5295187 38.798901, -80.5295247 38.7989037, -80.5295295 38.7989082, -80.5299446 38.7994537, -80.5299463 38.7994562, -80.5310187 38.8014209, -80.5324673 38.8017428, -80.5324752 38.8017465, -80.5324808 38.8017531, -80.532483 38.8017615, -80.5325313 38.8029895, -80.5325298 38.8029978, -80.5325251 38.8030048, -80.5319199 38.8035811, -80.5305004 38.8064925, -80.5304965 38.8064979, -80.5286372 38.8083399, -80.5279851 38.8098122, -80.5290756 38.8112741, -80.5310266 38.8125358, -80.5310313 38.8125401, -80.5310343 38.8125456, -80.5315099 38.814018, -80.5315708 38.8140212, -80.5318338 38.8154606, -80.5322259 38.8168509, -80.5322266 38.8168573, -80.5322247 38.8168642, -80.5322205 38.81687, -80.5314191 38.8176369, -80.5314144 38.8176403, -80.5295706 38.8185777,



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Project Type:

Oil Or Gas

Endangered Species Act Species List ([USFWS Endangered Species Program](#)).

There are a total of 4 threatened or endangered species on your species list. Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fishes may appear on the species list because a project could cause downstream effects on the species. Critical habitats listed under the **Has Critical Habitat** column may or may not lie within your project area. See the **Critical habitats within your project area** section below for critical habitat that lies within your project area. Please contact the designated FWS office if you have questions.

Species that should be considered in an effects analysis for your project:

Clams	Status		Has Critical Habitat	Contact
clubshell (<i>Pleurobema clava</i>) Population: Entire Range; Except where listed as Experimental Populations	Endangered	species info		West Virginia Ecological Services Field Office
Snuffbox mussel (<i>Epioblasma triquetra</i>)	Endangered	species info		West Virginia Ecological Services Field Office
Mammals				
Indiana bat (<i>Myotis sodalis</i>) Population: Entire	Endangered	species info		West Virginia Ecological Services Field Office
northern long-eared Bat (<i>Myotis septentrionalis</i>) Population:	Proposed Endangered	species info		West Virginia Ecological Services Field Office

Critical habitats within your project area:

There are no critical habitats within your project area.



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FWS National Wildlife Refuges ([USFWS National Wildlife Refuges Program](#)).

There are no refuges found within the vicinity of your project.

FWS Migratory Birds ([USFWS Migratory Bird Program](#)).

The protection of birds is regulated by the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA). Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. For more information regarding these Acts see: <http://www.fws.gov/migratorybirds/RegulationsandPolicies.html>.

All project proponents are responsible for complying with the appropriate regulations protecting birds when planning and developing a project. To meet these conservation obligations, proponents should identify potential or existing project-related impacts to migratory birds and their habitat and develop and implement conservation measures that avoid, minimize, or compensate for these impacts. The Service's Birds of Conservation Concern (2008) report identifies species, subspecies, and populations of all migratory nongame birds that, without additional conservation actions, are likely to become listed under the Endangered Species Act as amended (16 U.S.C 1531 et seq.).

For information about Birds of Conservation Concern, go to:

<http://www.fws.gov/migratorybirds/CurrentBirdIssues/Management/BCC.html>.

To search and view summaries of year-round bird occurrence data within your project area, go to the Avian Knowledge Network Histogram Tool links in the Bird Conservation Tools section at: <http://www.fws.gov/migratorybirds/CCMB2.htm>.

For information about conservation measures that help avoid or minimize impacts to birds, please visit:

<http://www.fws.gov/migratorybirds/CCMB2.htm>.

Migratory birds of concern that may be affected by your project:

There are **20** birds on your Migratory birds of concern list. The underlying data layers used to generate the migratory bird list of concern will continue to be updated regularly as new and better information is obtained. User feedback is one method of identifying any needed improvements. Therefore, users are encouraged to submit comments about any questions regarding species ranges (e.g., a bird on the USFWS BCC list you know does not occur in the specified location appears on the list, or a BCC species that you know does occur there is not appearing on the list). Comments should be sent to [the ECOS Help Desk](#).



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Species Name	Bird of Conservation Concern (BCC)	Species Profile	Seasonal Occurrence in Project Area
Bald eagle (<i>Haliaeetus leucocephalus</i>)	Yes	species info	Year-round
Black-billed Cuckoo (<i>Coccyzus erythrophthalmus</i>)	Yes	species info	Breeding
Black-capped Chickadee (<i>Poecile atricapillus</i>)	Yes	species info	Year-round
Blue-winged Warbler (<i>Vermivora pinus</i>)	Yes	species info	Breeding
cerulean warbler (<i>Dendroica cerulea</i>)	Yes	species info	Breeding
Fox Sparrow (<i>Passerella iliaca</i>)	Yes	species info	Wintering
Henslow's sparrow (<i>Ammodramus henslowii</i>)	Yes	species info	Breeding
Kentucky Warbler (<i>Oporornis formosus</i>)	Yes	species info	Breeding
Least Bittern (<i>Ixobrychus exilis</i>)	Yes	species info	Breeding
Louisiana Waterthrush (<i>Parkesia motacilla</i>)	Yes	species info	Breeding
northern saw-whet owl (<i>Aegolius acadicus</i>)	Yes	species info	Year-round
Pied-billed Grebe (<i>Podilymbus podiceps</i>)	Yes	species info	Breeding
Prairie Warbler (<i>Dendroica discolor</i>)	Yes	species info	Breeding
Red crossbill (<i>Loxia curvirostra</i>)	Yes	species info	Year-round
Red-headed Woodpecker (<i>Melanerpes erythrocephalus</i>)	Yes	species info	Breeding
Rusty Blackbird (<i>Euphagus carolinus</i>)	Yes	species info	Wintering
Short-eared Owl (<i>Asio flammeus</i>)	Yes	species info	Wintering



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Swainson's Warbler (<i>Limnothlypis swainsonii</i>)	Yes	species info	Breeding
Wood Thrush (<i>Hylocichla mustelina</i>)	Yes	species info	Breeding
Worm eating Warbler (<i>Helmitheros vermivorum</i>)	Yes	species info	Breeding

NWI Wetlands ([USFWS National Wetlands Inventory](#)).

The U.S. Fish and Wildlife Service is the principal Federal agency that provides information on the extent and status of wetlands in the U.S., via the National Wetlands Inventory Program (NWI). In addition to impacts to wetlands within your immediate project area, wetlands outside of your project area may need to be considered in any evaluation of project impacts, due to the hydrologic nature of wetlands (for example, project activities may affect local hydrology within, and outside of, your immediate project area). It may be helpful to refer to the USFWS National Wetland Inventory website. The designated FWS office can also assist you. Impacts to wetlands and other aquatic habitats from your project may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal Statutes. Project Proponents should discuss the relationship of these requirements to their project with the Regulatory Program of the appropriate [U.S. Army Corps of Engineers District](#).

Data Limitations, Exclusions and Precautions

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery and/or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Exclusions - Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include



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seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tubercid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Precautions - Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

The following wetland types intersect your project area in one or more locations:

Wetland Types	NWI Classification Code	Total Acres
Freshwater Pond	PUBHh	0.3209



U.S. Fish and Wildlife Service

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Endangered Species Act species list information for your project is available online and listed below for the following FWS Field Offices:

Virginia Ecological Services Field Office
6669 SHORT LANE
GLOUCESTER, VA 23061
(804) 693-6694
<http://www.fws.gov/northeast/virginiafield/>

West Virginia Ecological Services Field Office
694 BEVERLY PIKE
ELKINS, WV 26241
(304) 636-6586
<http://www.fws.gov/westvirginiafieldoffice/>

Project Name:

MVP_REV3-2_South



Project Location Map:



Franklin, VA | Giles, VA | Montgomery, VA | Pittsylvania, VA | Roanoke, VA | Braxton, WV | Fayette, WV |
Greenbrier, WV | Monroe, WV | Nicholas, WV | Summers, WV | Webster, WV



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Geographic coordinates (Open Geospatial Consortium Well-Known Text, NAD83):

MULTIPOLYGON (((-80.6895192 37.5005704, -80.6900748 37.501593, -80.6900772 37.501602, -80.6900785 37.5016585, -80.6931321 37.5043445, -80.6931362 37.5043494, -80.6931385 37.5043554, -80.6931485 37.5044036, -80.6942692 37.5051435, -80.6942743 37.5051483, -80.6942774 37.5051545, -80.695974 37.5108421, -80.6959747 37.5108454, -80.6965943 37.5160317, -80.6967689 37.5164693, -80.6981348 37.5160688, -80.6981379 37.5160682, -80.7005546 37.5157599, -80.7005619 37.5157603, -80.7005685 37.5157633, -80.7026809 37.5172335, -80.7026853 37.5172377, -80.7035252 37.5183236, -80.7044546 37.5187005, -80.7056732 37.5190361, -80.7056798 37.5190393, -80.7069246 37.5199555, -80.7069295 37.5199608, -80.7078257 37.5213597, -80.7085614 37.5222399, -80.7110074 37.5232708, -80.7110115 37.5232731, -80.711718 37.5237976, -80.7117235 37.5238038, -80.711726 37.5238116, -80.7117252 37.5238198, -80.7114316 37.5247421, -80.7114311 37.5247434, -80.7107653 37.5264186, -80.7107634 37.5264222, -80.7099996 37.5275802, -80.7100199 37.5282435, -80.711383 37.5294309, -80.7113865 37.5294348, -80.7122589 37.5307312, -80.7140926 37.530741, -80.7141 37.5307425, -80.7141063 37.5307466, -80.7141107 37.5307527, -80.7147493 37.5321576, -80.7147511 37.5321652, -80.7148263 37.5341734, -80.716088 37.5362432, -80.717122 37.5375403, -80.7187057 37.5385951, -80.7187116 37.5386011, -80.7187144 37.538609, -80.7188328 37.5394938, -80.7188328 37.539499, -80.7186518 37.5409391, -80.7186502 37.5409449, -80.7186469 37.5409499, -80.7168616 37.5429435, -80.7168572 37.5429473, -80.7145266 37.5443757, -80.7145246 37.5443767, -80.7113343 37.5458763, -80.7109304 37.5471285, -80.7109273 37.5471345, -80.7102877 37.5479784, -80.7101425 37.5487124, -80.710573 37.550359, -80.7105737 37.5503631, -80.7107222 37.5532064, -80.7107221 37.553209, -80.7106167 37.55451, -80.7108402 37.5564189, -80.7108402 37.5564232, -80.7105095 37.5597915, -80.710508 37.5597972, -80.7091748 37.5629763, -80.7091747 37.5629767, -80.7079809 37.5656559, -80.7065169 37.5700497, -80.705561 37.5748649, -80.7055221 37.5812889, -80.7056702 37.5827125, -80.7056689 37.582722, -80.7051086 37.5841382, -80.7051061 37.5841426, -80.703811 37.5859058, -80.7046009 37.5878977, -80.704602 37.5879018, -80.7049764 37.590139, -80.7055686 37.5924954, -80.7055692 37.5924993, -80.7056439 37.5939991, -80.7056432 37.5940054, -80.7056405 37.5940112, -80.7033314 37.5974727, -80.7033291 37.5974756, -80.7016312 37.5992008, -80.7016241 37.5992054, -80.699889 37.5998784, -80.6998859 37.5998794, -80.6966752 37.600548, -80.6929895 37.6038298, -80.6991393 37.6167233, -80.6991411 37.6167335, -80.6984743 37.6252872, -80.698473 37.6252931, -80.6984699 37.6252983, -80.6942226 37.6304743, -80.6942209 37.6304761, -80.6895413 37.634954, -80.6911851 37.6387213, -80.6948627 37.640104, -80.6948697 37.6401084, -80.6948743 37.6401154, -80.696302 37.6437352, -80.6963033 37.643744, -80.6961191 37.6461859, -80.7003087 37.6486811, -80.7003133 37.6486849, -80.7003166 37.6486898, -80.7011232 37.6504142, -80.7023605 37.6524966, -80.7023616 37.6524987, -80.7036731 37.6554539, -80.7050607 37.6563532, -80.7066291 37.6571704, -80.7092535 37.6584233, -80.7092593 37.6584275, -80.7107738 37.6600077, -80.7143855 37.6633254, -80.7169551 37.6649342, -80.7185801 37.6647366, -80.7185888 37.6647375, -80.7214461 37.6656893, -80.7214548 37.6656951, -80.7236603 37.6681972, -80.723662 37.6681994, -80.7256052 37.6711461, -80.7293524 37.6720392, -80.7293581 37.6720415, -80.7293627 37.6720454, -80.7302081 37.6729965, -80.7302111 37.6730008, -80.7309659 37.6744983, -80.7322624 37.6757388, -80.7335465 37.676651, -80.7335518 37.6766566, -80.7335546 37.6766638, -80.7335545 37.6766715, -80.7335514 37.6766786, -80.7300091 37.6818528, -80.7304856 37.6821843, -80.7304904 37.6821889, -80.7304933 37.6821949, -80.7306255 37.6826323, -80.7306203 37.6826357, -80.7306244 37.6826468, -80.73062 37.6826528, -80.7289054 37.684241, -80.7307185 37.6851405, -80.73114 37.6860371, -80.7331941 37.6860391, -80.7347797 37.6870679, -80.7347846 37.6870725, -80.7347878 37.6870784, -80.7351017 37.6880236,



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Project Type:

Oil Or Gas

Endangered Species Act Species List ([USFWS Endangered Species Program](#)).

There are a total of 16 threatened or endangered species on your species list. Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fishes may appear on the species list because a project could cause downstream effects on the species. Critical habitats listed under the **Has Critical Habitat** column may or may not lie within your project area. See the **Critical habitats within your project area** section below for critical habitat that lies within your project area. Please contact the designated FWS office if you have questions.

Species that should be considered in an effects analysis for your project:

Clams	Status		Has Critical Habitat	Contact
clubshell (<i>Pleurobema clava</i>) Population: Entire Range; Except where listed as Experimental Populations	Endangered	species info		West Virginia Ecological Services Field Office
Northern riffleshell (<i>Epioblasma torulosa rangiana</i>) Population: Entire	Endangered	species info		West Virginia Ecological Services Field Office
Pink mucket (<i>Lampsilis abrupta</i>) Population: Entire	Endangered	species info		West Virginia Ecological Services Field Office
Rayed Bean (<i>Villosa fabalis</i>)	Endangered	species info		West Virginia Ecological Services Field Office
Snuffbox mussel (<i>Epioblasma triquetra</i>)	Endangered	species info		West Virginia Ecological Services Field Office
Fishes				
diamond Darter (<i>Crystallaria cincotta</i>)	Endangered	species info	Final designated critical habitat	West Virginia Ecological Services Field Office



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Roanoke logperch (<i>Percina rex</i>) Population: Entire	Endangered	species info		Virginia Ecological Services Field Office
Flowering Plants				
Northeastern bulrush (<i>Scirpus ancistrochaetus</i>)	Endangered	species info		Virginia Ecological Services Field Office
Running Buffalo clover (<i>Trifolium stoloniferum</i>)	Endangered	species info		West Virginia Ecological Services Field Office
Small Whorled pogonia (<i>Isotria medeoloides</i>)	Threatened	species info		West Virginia Ecological Services Field Office
Smooth coneflower (<i>Echinacea laevigata</i>)	Endangered	species info		Virginia Ecological Services Field Office
Virginia spiraea (<i>Spiraea virginiana</i>)	Threatened	species info		West Virginia Ecological Services Field Office
Insects				
Mitchell's Satyr Butterfly (<i>Neonympha mitchellii mitchellii</i>) Population: Entire	Endangered	species info		Virginia Ecological Services Field Office
Mammals				
Indiana bat (<i>Myotis sodalis</i>) Population: Entire	Endangered	species info		Virginia Ecological Services Field Office, West Virginia Ecological Services Field Office



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northern long-eared Bat (<i>Myotis septentrionalis</i>) Population:	Proposed Endangered	species info		Virginia Ecological Services Field Office, West Virginia Ecological Services Field Office
Virginia Big-Eared bat (<i>Corynorhinus (=plecotus) townsendii virginianus</i>) Population: Entire	Endangered	species info	Final designated critical habitat	West Virginia Ecological Services Field Office

Critical habitats within your project area:

There are no critical habitats within your project area.

FWS National Wildlife Refuges ([USFWS National Wildlife Refuges Program](#)).

There are no refuges found within the vicinity of your project.

FWS Migratory Birds ([USFWS Migratory Bird Program](#)).

The protection of birds is regulated by the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA). Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the U.S. Fish and Wildlife Service (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). The MBTA has no provision for allowing take of migratory birds that may be unintentionally killed or injured by otherwise lawful activities. For more information regarding these Acts see: <http://www.fws.gov/migratorybirds/RegulationsandPolicies.html>.

All project proponents are responsible for complying with the appropriate regulations protecting birds when planning and developing a project. To meet these conservation obligations, proponents should identify potential or existing project-related impacts to migratory birds and their habitat and develop and implement conservation measures that avoid, minimize, or compensate for these impacts. The Service's Birds of Conservation Concern (2008) report identifies species, subspecies, and populations of all migratory nongame birds that, without additional conservation actions, are likely to become listed under the Endangered Species Act as amended (16 U.S.C 1531 et seq.).



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For information about Birds of Conservation Concern, go to:

<http://www.fws.gov/migratorybirds/CurrentBirdIssues/Management/BCC.html>.

To search and view summaries of year-round bird occurrence data within your project area, go to the Avian Knowledge Network Histogram Tool links in the Bird Conservation Tools section at: <http://www.fws.gov/migratorybirds/CCMB2.htm>.

For information about conservation measures that help avoid or minimize impacts to birds, please visit:

<http://www.fws.gov/migratorybirds/CCMB2.htm>.

Migratory birds of concern that may be affected by your project:

There are **24** birds on your Migratory birds of concern list. The underlying data layers used to generate the migratory bird list of concern will continue to be updated regularly as new and better information is obtained. User feedback is one method of identifying any needed improvements. Therefore, users are encouraged to submit comments about any questions regarding species ranges (e.g., a bird on the USFWS BCC list you know does not occur in the specified location appears on the list, or a BCC species that you know does occur there is not appearing on the list). Comments should be sent to the [ECOS Help Desk](#).

Species Name	Bird of Conservation Concern (BCC)	Species Profile	Seasonal Occurrence in Project Area
American bittern (<i>Botaurus lentiginosus</i>)	Yes	species info	Wintering
Bald eagle (<i>Haliaeetus leucocephalus</i>)	Yes	species info	Year-round
Black-billed Cuckoo (<i>Coccyzus erythrophthalmus</i>)	Yes	species info	Breeding
Black-capped Chickadee (<i>Poecile atricapillus</i>)	Yes	species info	Year-round
Blue-winged Warbler (<i>Vermivora pinus</i>)	Yes	species info	Breeding
Canada Warbler (<i>Wilsonia canadensis</i>)	Yes	species info	Breeding
cerulean warbler (<i>Dendroica cerulea</i>)	Yes	species info	Breeding
Fox Sparrow (<i>Passerella iliaca</i>)	Yes	species info	Wintering
Golden-Winged Warbler (<i>Vermivora chrysoptera</i>)	Yes	species info	Breeding



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Henslow's sparrow (<i>Ammodramus henslowii</i>)	Yes	species info	Breeding
Kentucky Warbler (<i>Oporornis formosus</i>)	Yes	species info	Breeding
Least Bittern (<i>Ixobrychus exilis</i>)	Yes	species info	Breeding
Loggerhead Shrike (<i>Lanius ludovicianus</i>)	Yes	species info	Year-round
Louisiana Waterthrush (<i>Parkesia motacilla</i>)	Yes	species info	Breeding
northern saw-whet owl (<i>Aegolius acadicus</i>)	Yes	species info	Year-round
Pied-billed Grebe (<i>Podilymbus podiceps</i>)	Yes	species info	Year-round, Breeding
Prairie Warbler (<i>Dendroica discolor</i>)	Yes	species info	Breeding
Prothonotary Warbler (<i>Protonotaria citrea</i>)	Yes	species info	Breeding
Red crossbill (<i>Loxia curvirostra</i>)	Yes	species info	Year-round
Red-headed Woodpecker (<i>Melanerpes erythrocephalus</i>)	Yes	species info	Year-round, Breeding
Rusty Blackbird (<i>Euphagus carolinus</i>)	Yes	species info	Wintering
Wood Thrush (<i>Hylocichla mustelina</i>)	Yes	species info	Breeding
Worm eating Warbler (<i>Helmitheros vermivorum</i>)	Yes	species info	Breeding
Yellow-Bellied sapsucker (<i>sphyrapicus varius</i>)	Yes	species info	Breeding

NWI Wetlands ([USFWS National Wetlands Inventory](#)).

The U.S. Fish and Wildlife Service is the principal Federal agency that provides information on the extent and status of wetlands in the U.S., via the National Wetlands Inventory Program (NWI). In addition to impacts to wetlands within your immediate project area, wetlands outside of your project area may need to be considered



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in any evaluation of project impacts, due to the hydrologic nature of wetlands (for example, project activities may affect local hydrology within, and outside of, your immediate project area). It may be helpful to refer to the USFWS National Wetland Inventory website. The designated FWS office can also assist you. Impacts to wetlands and other aquatic habitats from your project may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal Statutes. Project Proponents should discuss the relationship of these requirements to their project with the Regulatory Program of the appropriate [U.S. Army Corps of Engineers District](#).

Data Limitations, Exclusions and Precautions

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery and/or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Exclusions - Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tubercid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Precautions - Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

The following wetland types intersect your project area in one or more locations:



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Wetland Types	NWI Classification Code	Total Acres
Freshwater Emergent Wetland	PEM1/SS1C	4.9329
Freshwater Emergent Wetland	PEM/SS1A	0.6723
Freshwater Emergent Wetland	PEM/SS1C	2.3584
Freshwater Forested/Shrub Wetland	PFO1C	3.0766
Freshwater Forested/Shrub Wetland	PFO1A	31.7638
Freshwater Pond	PUBEx	0.465
Freshwater Pond	PUBHh	1.5139
Riverine	R3UBH	11.2219
Riverine	R2UBH	3765.8697
Riverine	R3RSA	6.6384
Riverine	R3RBH	396.2166
Riverine	R5UBH	74.7152