

From: [Lennon, Tiernan](#)
To: (b) (6) Richard.S.Bailey@wv.gov
Subject: Re: , Sensitive Wildlife area in Monroe County on Ellison"s Ridge
Date: Monday, April 27, 2015 11:53:56 AM
Attachments: [MVP.pdf](#)

Good Morning (b) (6)

I have prepared a letter for FERC that addresses the USFWS concerns about the MVP pipeline (see attachment). The Service is currently working with MVP to select an alternative that protects fish and wildlife resources and avoids adversely affecting any migratory birds and/or threatened/endangered species. I have also forwarded along your email to Richard Bailey of the WVDNR. Your concern is greatly appreciated, thank you!

-Tiernan

On Fri, Apr 24, 2015 at 8:52 AM, (b) (6) wrote:
TO WHOM IT MAY CONCERN: The attached document has been sent to Tiernon Lennon, Biologist WV Dept. of Fish and Wildlife, WV Field Office in Elkins by regular mail, a copy has been sent to Paul Friedman, MVP Project Manager, FERC.

Attached s the letter and three color pictures.

(b) (6)

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Tiernan Lennon
Fish and Wildlife Biologist
West Virginia Field Office
U.S. Fish and Wildlife Service
694 Beverly Pike
Elkins, WV 26241
304-636-6586 Ext. 12
Fax: 304-636-7824
Tiernan_Lennon@fws.gov



United States Department of the Interior

FISH AND WILDLIFE SERVICE

West Virginia Field Office
694 Beverly Pike
Elkins, West Virginia 26241



April 23, 2015

Ms. Valerie Clarkston
Environmental Solutions & Innovations, Inc.
4525 Este Avenue
Cincinnati, Ohio 45232

Re: EQT Corporation and NextEra Energy, Inc., Mountain Valley Pipeline Project, Braxton, Doddridge, Fayette, Greenbrier, Harrison, Lewis, Monroe, Nicholas, Summers, Upshur, Webster, and Wetzel Counties, West Virginia

Dear Ms. Clarkston:

This responds to your request of October 13, 2014, for information regarding the potential occurrence of federally listed endangered and threatened species and their designated critical habitats. Mountain Valley Pipeline, LLC (MVP), a joint venture of EQT Production (EQT) and a subsidiary of NextEra Energy, Inc., proposes to construct the Mountain Valley Pipeline Project through portions of Braxton, Doddridge, Fayette, Greenbrier, Harrison, Lewis, Monroe, Nicholas, Summers, Upshur, Webster, and Wetzel counties, West Virginia and Craig, Franklin, Giles, Montgomery, Pittsylvania and Roanoke counties, Virginia. MVP has identified multiple potential routes, but the final alignment will be approximately 300 miles. The total length of all potential routes is approximately 386.93 miles (216.98 miles in West Virginia and 169.95 miles in Virginia). These comments are provided pursuant to the Endangered Species Act (ESA) (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.*), the Bald and Golden Eagle Protection Act (BGEPA) (16 U.S.C. 668-668c, as amended), and the Migratory Bird Treaty Act (MBTA) (16 U.S.C. 703-712).

The U.S. Fish and Wildlife Service (Service) has determined that 7 federally listed endangered species and 3 federally listed threatened species, respectively, are known to occur within the West Virginia portion of the proposed project area, and may be affected by the construction and operation of the proposed project. These are the endangered Indiana bat (*Myotis sodalis*), Virginia big-eared bat (*Corynorhinus townsendii virginianus*), clubshell mussel (*Pleurobema clava*), snuffbox mussel (*Epioblasma triquetra*), James spinymussel (*Pleurobema collina*), shale barren rock cress (*Arabis serotina*), running buffalo clover (*Trifolium stoloniferum*), and the

threatened northern long-eared bat (*Myotis septentrionalis*), small whorled pogonia (*Isotria medeoloides*), and Virginia spiraea (*Spiraea virginiana*). Information to avoid impacts to these species is provided below.

Endangered and Threatened Bats

Known and potential habitat for Indiana and northern long-eared bats occurs within the proposed project alignment. The proposed alignment passes through potential summer habitat for Indiana and northern long-eared bats in Lewis, Braxton, and Summers Counties. In addition, it passes through summer capture, maternity, and hibernacula known-use areas in portions of Doddridge, Fayette, Greenbrier, Harrison, Monroe, Nicholas, Webster, and Wetzel counties.

MVP has decided to perform summer habitat surveys for portions of the alignment that lie outside of known-use areas. An Indiana Bat/Northern Long-Eared Bat Conservation Plan (plan guidelines attached) will need to be completed for sections of the proposed alignment that fall within known-use areas.

The presence of caves and mine portals, and their use by bats, must also be addressed. Suitable winter habitat (hibernacula) for Indiana bats and northern long-eared bats include underground caves and cave-like structures (e.g. abandoned or active mines, railroad tunnels). There may be other landscape features being used by northern long-eared bats during the winter that have yet to be documented. Generally, both species hibernate between November 15 and March 31, use caves and areas near caves for fall-swarming activity, and male Indiana bats have been known to use caves and portals as summer roosts. Virginia big-eared bats use caves or mine portals during any time of the year. Mine portals used by this species are known to occur in Fayette County.

The proposed pipeline should be surveyed for caves and mine portals. This survey can be performed by mining engineers, other field personnel, or biologists with experience identifying caves or mines. The survey should include a review of topographic, mining, karst occurrence, and environmental resources information maps; as well as actual field reviews of the entire proposed project area. For linear projects (e.g., transmission lines, natural gas pipelines, highways, and access roads), the field survey should include lands buffering the disturbance footprint of the proposed linear project, extending to 0.6 mile (1 km) on each side of the outer edges of the footprint.

Any caves and portals found should be evaluated for characteristics that may indicate potential use by bats. A Phase I Cave/Mine Portal Survey Data Sheet should be completed for each opening found. This data sheet is enclosed and results should be compared against the criteria listed in the Draft Protocol for Assessing Abandoned Mines/Caves for Bat Use. The data obtained from the survey should be provided to the Service for review and agreement before any federal permits are issued for this project and before a final decision on any alignment is made.

Any caves and portals determined not to exhibit potential habitat for bats, based upon the criteria referenced above, will not require any further assessments for the presence of federally listed bat species. If caves and/or portals at the proposed site appear to have suitable bat habitat characteristics, mist net surveys or trapping may be recommended. Guidelines for conducting these surveys are provided in the Draft Protocol for Assessing Abandoned Mines/Caves for Bat Use. However, due to concerns about the potential for mist netting and trapping at caves or portals to exacerbate the spread of white nose syndrome, please contact this office for the most current recommendations and protocols prior to conducting these activities. The results of any surveys should be provided to this office for review and agreement before any federal permits are issued for this project and before a final decision on any alignment is made. If federally listed bats are found using caves or portals in the project area, further consultation will be necessary.

It should be noted that adverse impacts to caves or mine portals that are used by endangered bat species may result in violation of section 9 of the ESA. Caves may also contain other sensitive species, and activities that may adversely affect cave passages and openings should generally be avoided to the maximum extent practicable.

No tree clearing on any portion of the project area should occur until consultation under section 7 of the ESA, between the Service and the Federal Energy Regulatory Commission (FERC), is completed. The Service needs to review the results of the habitat evaluations, mist net surveys, and the proposed conservation plan before making a determination on bat species.

Freshwater Mussels

The project proposes to cross Leading Creek and the Little Kanawha River, which support clubshell and snuffbox mussels, and to cross the South Fork of Potts Creek, which supports the James spinymussel.

The Service highly recommends that MVP select the route that does not cross the South Fork of Potts Creek. The South Fork of Potts Creek is a highly sensitive stream containing the only known population of the federally endangered James spinymussel in the state. This watershed should be avoided in its entirety if at all possible. If it cannot be avoided then justification for selecting that route needs to be provided and efforts to minimize impacts must be developed.

The Service highly recommends crossing Leading Creek and the Little Kanawha River via Horizontal Directional Drill methods (HDD) to avoid impacts to federally listed mussels. If open trench crossings are proposed, the Service will need explanation as to why an HDD crossing of these streams is infeasible as outlined in an HDD feasibility analysis that should be completed by an engineer.

If the South Fork of Potts Creek cannot be avoided and HDD cannot be used on Leading Creek and the Little Kanawha River, then additional coordination with our office will be needed and mussel surveys will need to be completed for the proposed crossing locations.

The Service is also concerned that construction activities for the proposed project could result in erosion, surface run-off, or subsequent introduction of sediment and/or pollutants into Leading Creek, the Little Kanawha River, and the South Fork of Potts Creek, potentially impacting the mussels, their habitat, and fish-host species. Therefore, the Service recommends the following measures be taken to address potential erosion and sedimentation issues at these locations: (1) Construct and install sediment barriers, catch basins, or implement other available methods to ensure that erosion and sedimentation resulting from construction of this project are minimized to the extent practicable; (2) Implement additional Best Management Practices to avoid any indirect impacts to the mussels downstream of the proposed project. These include minimizing vegetation-clearing, mulching and seeding disturbed areas immediately after completing each incremental stage of construction or within one day of a stop in operations, and revegetating any disturbed areas with native, non-invasive plant species; (3) Immediately notify this office if any deviations from the submitted project plans are anticipated, or if any significant erosion-control or sedimentation problems occur during construction of the project.

Plants

Potentially suitable habitat for running buffalo clover occurs within the proposed project alignment in Fayette, Greenbrier and Webster counties. Running buffalo clover occurs in mesic habitats of partial to filtered sunlight, where there is a prolonged pattern of moderate periodic disturbance, such as mowing, trampling, or grazing. It is most often found in regions underlain with limestone or other calcareous bedrock. In West Virginia, running buffalo clover seems to prefer old logging roads, off-road vehicle (ORV) trails, hawthorne thickets, grazed woodlands, jeep trails, railroad grades, game trails, and old fields succeeding to mesic woodlands. The Service recommends that surveys for running buffalo clover be completed along the proposed pipeline alignment prior to any construction.

Potentially suitable habitat for Virginia spiraea occurs along the Greenbrier, Gauley, Meadow River, Marsh Fork River, and the New River. Virginia spiraea is found along scoured banks of high gradient streams or on meander scrolls, point bars, natural levees, and braided features of lower stream reaches. We recommend that surveys for Virginia spiraea be conducted where the proposed alignment crosses the Greenbrier, Gauley, and Meadow Rivers.

Populations of the small whorled pogonia are known to occur in Greenbrier County. This species prefers to grow in upland mixed deciduous forest containing little to no understory clutter. We recommend that surveys for small whorled pogonia be completed in areas of Greenbrier County where suitable habitat is present.

Potentially suitable habitat for shale barren rock cress occurs in Greenbrier County. This plant occurs only in West Virginia and Virginia and is found on mid-Appalachian shale barrens of the Ridge and Valley Province of the Appalachian Mountains. The Service recommends that surveys for small whorled pogonia be completed in areas of Greenbrier County where suitable habitat is present.

Surveys for these species must be done during time periods when species are visible on the landscape, as listed in the attached Survey Periods for West Virginia's Federally Listed Plant Species. A list of approved Threatened and Endangered Plant Surveyors is also attached.

A survey report that summarizes the results of these surveys should be submitted to the Service for review and agreement before any federal permits are issued for this project and before a final decision on any alignment is made. If any federally listed species are found these populations should be avoided, and further coordination with this office will be required to develop measures that will avoid and minimize any potential impacts to these plants.

Bald and Golden Eagles

Bald and golden eagles receive Federal protection under the BGEPA and the MBTA. They are listed by the Service as Birds of Conservation Concern in the Appalachian Mountains Bird Conservation Region, within which the proposed project occurs.

The BGEPA provides for the protection of bald eagles and golden eagles by prohibiting, except under certain specified conditions, the taking, possession, and commerce of such birds. BGEPA prohibits anyone, without a permit issued by the Secretary of the Interior, from taking bald and golden eagles, including their parts, nests, or eggs. The BGEPA defines "take" as "pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest, or disturb." BGEPA provides civil and criminal penalties for persons who violate the law or regulations.

Under 50 Code of Federal Regulations (CFR) § 22.3, disturb is defined as "to agitate or bother a bald or golden eagle to a degree that causes, or is likely to cause, based on the best scientific information available: 1) injury to an eagle; 2) a decrease in its productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior; or 3) nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior." The BGEPA's definition of disturb also addresses effects associated with human induced alterations at the site of a previously used nest during a time when eagles are not present. Upon an eagle's return, if such alterations agitate or bother an eagle to a degree that interferes with or interrupts normal breeding, feeding, or sheltering habits, and causes injury, death or nest abandonment, then this would constitute disturbance.

The Service recommends performing an assessment as to how this proposed project may affect bald and golden eagles. Although there are no known nests within 10 miles of the proposed right-of-way, additional surveys will need to be completed for bald eagles, which have been sighted more frequently in the area in recent years and are known to nest and migrate through West Virginia. Based on personal communications with Dr. Todd Katzner of West Virginia University, golden eagles are known to use the area for migration and winter habitat. Dr. Katzner and his team have tracked eagles through this area with radio telemetry. The results of these surveys will

assist us in developing recommendations to avoid and minimize, to the extent practicable, effects to bald and golden eagles. Our goal is to work with project proponents to develop measures which avoid the need for eagle permits.

The Service recommends evaluating the project area for potential impacts to eagle habitat (i.e., bald eagle nests, bald and golden eagle roosts). If bald eagles are found during this assessment, please refer to the National Bald Eagle Management Guidelines which can be viewed at the following link:

<http://www.fws.gov/northeast/ecologicalservices/pdf/NationalBaldEagleManagementGuidelines.pdf>

Migratory Birds

The MBTA implements protection of all native migratory game and non-game birds with exceptions for the control of species that cause damage to agricultural or other interests. According to 50 CFR § 10.12, a migratory bird means any bird, whatever its origin and whether or not raised in captivity, which belongs to a species listed in the Service's regulations, or which is a mutation or a hybrid of any such species, including any part, nest, or egg of any such bird, or any product, whether or not manufactured, which consists, or is composed in whole or part, of any such bird or any part, nest, or egg thereof. In total, 836 bird species are protected by the MBTA. For a complete list of birds protected by the MBTA visit this link

<http://www.fws.gov/migratorybirds/regulationspolicies/mbta/MBTANDX.HTML> .

The MBTA prohibits the take of any migratory bird, part, nest, egg or product. Take, as defined in the MBTA, includes by any means or in any manner any attempt at hunting, pursuing, wounding, killing, possessing, or transporting any migratory bird, nest, egg, or part thereof.

The MBTA does not explicitly include provisions for permits to authorize incidental take of migratory birds. While it is not possible to absolve individuals or companies from MBTA or the BGEPA liability, the Service's Office of Law Enforcement focuses its resources on investigating and prosecuting those who take migratory birds without identifying and implementing reasonable and effective measures to avoid take. The Service will regard a company's coordination and communication with the Service, as appropriate means of identifying and implementing reasonable and effective measures to avoid the take of species protected under the MBTA and BGEPA.

As such, the potential exists for avian mortality from habitat destruction and alteration within the project boundaries. Site-specific factors that should be considered in project siting to avoid and minimize risks to birds include avian abundance; the quality, quantity and type of habitat; geographic location; type and extent of bird use (e.g. breeding, foraging, migrating, etc.); and landscape features. We recommend minimization of land and vegetation disturbance during project design and construction and that all new activities be constrained to previously disturbed areas wherever possible (e.g., road and utility line rights-of-way, agricultural fields, previously mined areas, etc.).

Ms. Valerie Clarkston
April 23, 2015

7

We offer the following additional recommendations to avoid and minimize impacts to migratory birds within and around the project area:

1. Due to the difficulty in assessing the entire project site for all bird nests, we recommend that the clearing of natural or semi-natural habitats (e.g., forests, woodlots, reverting fields, fencerows, shrubby areas) be carried out between September 1 and March 31, which is outside the nesting season for most native bird species. Without undertaking specific analysis of breeding species and their respective nesting seasons on the project site, implementation of this seasonal restriction will avoid direct take of most breeding birds, their nests, and their young (*i.e.*, eggs, hatchlings).
2. To conserve area-sensitive species, avoid fragmenting large, contiguous tracts of wildlife habitat, especially if habitat cannot be fully restored after construction. Maintain contiguous habitat corridors to facilitate dispersal. Where practicable, concentrate construction activities, infrastructure, and man-made structures (e.g., roads, parking lots, staging areas) on lands already altered or cultivated, and away from areas of intact and healthy native habitats. If not convenient, site construction activities and structures in fragmented or degraded habitats over relatively intact areas.
3. To reduce habitat fragmentation, co-locate roads, lay down areas, staging areas, and other infrastructure in or immediately adjacent to already-disturbed areas (e.g., existing roads, pipelines, agricultural fields). Where this is not possible, minimize roads and other infrastructure. To minimize habitat loss and fragmentation, cluster development features (e.g., lay down areas, staging areas, roads) where possible rather than distributing infrastructure broadly across the landscape.

Summary

When the additional information regarding listed species as requested above is provided, the Service will be able to provide further information on our determination of effects to Service trust resources. If you have any questions regarding this letter, please contact Tiernan Lennon of my staff at (304) 636-6586, Ext. 12, or tiernan_lennon@fws.gov, or at the letterhead address.

Sincerely,



John E. Schmidt
Field Supervisor

Ms. Valerie Clarkston
April 23, 2015

8

Enclosures

Phase I Cave/Mine Portal Survey Data Sheet

Draft Protocol for Assessing Abandoned Mines/Caves for Bat Use

T&E Plant Surveyors

Survey Periods for West Virginia's Federally Listed Plant Species

Ms. Valerie Clarkston
April 23, 2015

9

cc:

WVDNR –Janet Clayton

WVDNR – PJ Harmon

VAFO – Troy Andersen

FERC – www.ferc.gov

Project File

Reader File

ES:WVFO:TLennon:skd:4/23/2015

Filename: P:\Finalized Correspondence\T&E Requests\2015\April\Mountain Valley
Pipeline.doc



United States Department of the Interior

FISH AND WILDLIFE SERVICE

West Virginia Field Office
694 Beverly Pike
Elkins, West Virginia 26241



April 23, 2015

Ms. Valerie Clarkston
Environmental Solutions & Innovations, Inc.
4525 Este Avenue
Cincinnati, Ohio 45232

Re: EQT Corporation and NextEra Energy, Inc., Mountain Valley Pipeline Project, Braxton, Doddridge, Fayette, Greenbrier, Harrison, Lewis, Monroe, Nicholas, Summers, Upshur, Webster, and Wetzel Counties, West Virginia

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Freshwater Mussels

The project proposes to cross Leading Creek and the Little Kanawha River, which support clubshell and snuffbox mussels, and to cross the South Fork of Potts Creek, which supports the James spinymussel.

The Service highly recommends that MVP select the route that does not cross the South Fork of Potts Creek. The South Fork of Potts Creek is a highly sensitive stream containing the only known population of the federally endangered James spinymussel in the state. This watershed should be avoided in its entirety if at all possible. If it cannot be avoided then justification for selecting that route needs to be provided and efforts to minimize impacts must be developed.

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Plants

Potentially suitable habitat for running buffalo clover occurs within the proposed project alignment in Fayette, Greenbrier and Webster counties. Running buffalo clover occurs in mesic habitats of partial to filtered sunlight, where there is a prolonged pattern of moderate periodic disturbance, such as mowing, trampling, or grazing. It is most often found in regions underlain with limestone or other calcareous bedrock. In West Virginia, running buffalo clover seems to prefer old logging roads, off-road vehicle (ORV) trails, hawthorne thickets, grazed woodlands, jeep trails, railroad grades, game trails, and old fields succeeding to mesic woodlands. The Service recommends that surveys for running buffalo clover be completed along the proposed pipeline alignment prior to any construction.

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<http://www.fws.gov/northeast/ecologicalservices/pdf/NationalBaldEagleManagementGuidelines.pdf>

Migratory Birds

The MBTA implements protection of all native migratory game and non-game birds with exceptions for the control of species that cause damage to agricultural or other interests. According to 50 CFR § 10.12, a migratory bird means any bird, whatever its origin and whether or not raised in captivity, which belongs to a species listed in the Service's regulations, or which is a mutation or a hybrid of any such species, including any part, nest, or egg of any such bird, or any product, whether or not manufactured, which consists, or is composed in whole or part, of any such bird or any part, nest, or egg thereof. In total, 836 bird species are protected by the MBTA. For a complete list of birds protected by the MBTA visit this link

<http://www.fws.gov/migratorybirds/regulationspolicies/mbta/MBTANDX.HTML> .

The MBTA prohibits the take of any migratory bird, part, nest, egg or product. Take, as defined in the MBTA, includes by any means or in any manner any attempt at hunting, pursuing, wounding, killing, possessing, or transporting any migratory bird, nest, egg, or part thereof.

The MBTA does not explicitly include provisions for permits to authorize incidental take of migratory birds. While it is not possible to absolve individuals or companies from MBTA or the BGEPA liability, the Service's Office of Law Enforcement focuses its resources on investigating and prosecuting those who take migratory birds without identifying and implementing reasonable and effective measures to avoid take. The Service will regard a company's coordination and communication with the Service, as appropriate means of identifying and implementing reasonable and effective measures to avoid the take of species protected under the MBTA and BGEPA.

As such, the potential exists for avian mortality from habitat destruction and alteration within the project boundaries. Site-specific factors that should be considered in project siting to avoid and minimize risks to birds include avian abundance; the quality, quantity and type of habitat; geographic location; type and extent of bird use (e.g. breeding, foraging, migrating, etc.); and landscape features. We recommend minimization of land and vegetation disturbance during project design and construction and that all new activities be constrained to previously disturbed areas wherever possible (e.g., road and utility line rights-of-way, agricultural fields, previously mined areas, etc.).

Ms. Valerie Clarkston
April 23, 2015

7


We offer the following additional recommendations to avoid and minimize impacts to migratory birds within and around the project area:

1. Due to the difficulty in assessing the entire project site for all bird nests, we recommend that the clearing of natural or semi-natural habitats (e.g., forests, woodlots, reverting fields, fencerows, shrubby areas) be carried out between September 1 and March 31, which is outside the nesting season for most native bird species. Without undertaking specific analysis of breeding species and their respective nesting seasons on the project site, implementation of this seasonal restriction will avoid direct take of most breeding birds, their nests, and their young (*i.e.*, eggs, hatchlings).
2. To conserve area-sensitive species, avoid fragmenting large, contiguous tracts of wildlife habitat, especially if habitat cannot be fully restored after construction. Maintain contiguous habitat corridors to facilitate dispersal. Where practicable, concentrate construction activities, infrastructure, and man-made structures (e.g., roads, parking lots, staging areas) on lands already altered or cultivated, and away from areas of intact and healthy native habitats. If not convenient, site construction activities and structures in fragmented or degraded habitats over relatively intact areas.
3. To reduce habitat fragmentation, co-locate roads, lay down areas, staging areas, and other infrastructure in or immediately adjacent to already-disturbed areas (e.g., existing roads, pipelines, agricultural fields). Where this is not possible, minimize roads and other infrastructure. To minimize habitat loss and fragmentation, cluster development features (e.g., lay down areas, staging areas, roads) where possible rather than distributing infrastructure broadly across the landscape.

Summary

When the additional information regarding listed species as requested above is provided, the Service will be able to provide further information on our determination of effects to Service trust resources. If you have any questions regarding this letter, please contact Tiernan Lennon of my staff at (304) 636-6586, Ext. 12, or tiernan_lennon@fws.gov, or at the letterhead address.

Sincerely,



John E. Schmidt
Field Supervisor

Ms. Valerie Clarkston
April 23, 2015

8

Enclosures

Phase I Cave/Mine Portal Survey Data Sheet

Draft Protocol for Assessing Abandoned Mines/Caves for Bat Use

T&E Plant Surveyors

Survey Periods for West Virginia's Federally Listed Plant Species

Ms. Valerie Clarkston
April 23, 2015

9

cc:

WVDNR –Janet Clayton

WVDNR – PJ Harmon

VAFO – Troy Andersen

FERC – www.ferc.gov

Project File

Reader File

ES:WVFO:TLennon:skd:4/23/2015

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