

Freshwater mussels are one of the most imperiled groups of animals in North America. Reservoir construction, sedimentation, channelization, runoff from urban areas, and water pollution are all factors that have contributed to the decline of our native mussel populations. As filter feeders, mussels are sensitive to contaminants and function as indicators of water quality.

The mussel species listed in the table below are known to occur or may potentially occur in the specified medium to large rivers in Kentucky. One or more species will appear on an IPaC-generated species list if the project area you delineated is located in or near one of these rivers.

	Rivers in Kentucky in Which the Species is Known to Occur or May Potentially Occur
Clubshell (<i>Pleurobema clava</i>)	Barren, Green, Licking, Ohio
Dromedary pearly mussel (<i>Dromus dromas</i>)	Big South Fork of the Cumberland
Fanshell (<i>Cyprogenia stegaria</i>)	Barren, Green, Licking, Ohio, Rolling Fork, Tennessee
Fat pocketbook (<i>Potamilus capax</i>)	Clarks (lower), Cumberland (lower), Green (lower), Mississippi, Ohio (lower), Tennessee, Tradewater (lower)
Northern riffleshell (<i>Epioblasma torulosa rangiana</i>) ¹	Green, Licking, Ohio
Orangefoot pimpleback (<i>Plethobasus cooperianus</i>)	Green, Ohio, Salt, Tennessee
Oyster mussel (<i>Epioblasma capsaeformis</i>)	Big South Fork of the Cumberland
Pink mucket (<i>Lampsilis abrupta</i>)	Barren, Green, Licking, Rolling Fork, Salt
Purple catpaw (<i>Epioblasma o. obliquata</i>) ²	Green, Licking, Ohio
Rabbitsfoot (<i>Quadrula c. cylindrica</i>) ³	Barren, Cumberland (below the falls), Green, Ohio, Rolling Fork, South Fork Kentucky, Tennessee
Ring pink (<i>Obovaria retusa</i>)	Barren, Cumberland (below the falls), Green, Ohio, Tennessee
Rough pigtoe (<i>Pleurobema plenum</i>)	Barren, Green, Licking, Ohio
Sheepnose (<i>Plethobasus cyphus</i>)	Barren, Green, Kentucky, Licking, Ohio, Tennessee
Spectaclecase (<i>Cumberlandia monodonta</i>) ⁴	Barren, Cumberland (below the falls), Green, Little South Fork of the Cumberland, Ohio, Tennessee

¹ This species has been renamed *Epioblasma walkeri*.

² This species has been renamed *Epioblasma obliquata*.

³ This species has been renamed *Theliderma cylindrica*.

⁴ This species has been renamed *Margaritifera monodonta*.

In-channel activities in the rivers listed above may potentially directly or indirectly affect one or more species of mussels. Even projects that do not involve in-channel activities still have the potential to impact listed mussel species and their habitats. Development activities that disturb

uplands in watersheds containing listed mussel species can degrade streams and rivers by increasing siltation/sedimentation, introducing pollutants, and/or altering riparian areas.

If the project area is within one-half to five miles from a river in which one of these mussel species is known to occur or may potentially occur, the IPaC-generated species list will include a condition stating the following: “The species may be affected by projects that significantly impact, directly or indirectly, the following rivers:.” The potential for indirect effects to these species should be carefully considered in these project areas.

When practicable, we recommend siting projects to avoid impacting streams and rivers that contain listed mussel species and utilizing methods, such as horizontal directional drilling and clear span bridges, to avoid direct impacts to listed mussel species and their habitats. The following are some general recommendations to minimize indirect impacts to streams and rivers and reduce impacts to federally-listed mussels:

- Utilize Best Management Practices to minimize erosion from work areas;
- Limit vegetation removal to minimize impacts in riparian areas;
- Revegetate disturbed areas with native vegetation;
- Use bioengineering techniques to restore disturbance to stream banks;
- Install upland sediment basins, where appropriate, to minimize sediment input into streams and rivers;
- Install detention structures to manage stormwater runoff into streams and river; and
- Minimize the addition of impervious surfaces in the watershed.

When submitting project information to the U.S. Fish and Wildlife Service’s Kentucky Field Office for review, please include information about streams and rivers in the action area of the proposed project. Describe any proposed activities that would occur in the channel or on the banks and include descriptions of measures proposed to reduce impacts to stream and river habitats.