



**Figure 5-1a. Preferred Floodplain Construction Window to Avoid/Minimize Rare Species Impacts in Reach 5A**

Common Name	Scientific Name	January	February	March	April	May	June	July	August	September	October	November	December
American bittern	<i>Botaurus lentiginosus</i>												
Arrow clubtail	<i>Stylurus spiniceps</i>												
Brook snaketail	<i>Ophiogomphus aspersus</i>												
Common moorhen	<i>Gallinula chloropus</i>												
Mustard white (Butterfly)	<i>Pieris oleracea</i>												
Ostrich fern borer moth	<i>Papaipema sp. 2 near pterisii</i>												
Rapids clubtail	<i>Gomphus quadricolor</i>												
Riffle snaketail	<i>Ophiogomphus carolus</i>												
Spine-crowned clubtail	<i>Gomphus abbreviatus</i>												
Wood turtle	<i>Glyptemys insculpta</i>												
Zebra clubtail	<i>Stylurus scudderii</i>												



 Preferred timing for floodplain construction  
 Construction during this period will likely increase adverse impacts to the species

Notes:

- The triangle floater is not present in floodplain habitats and therefore is not included in the floodplain construction table above.
- Due to the removal of the plant species biomass and seed bank from soil removal activities, it has been determined that there is no preferred construction window for plant species and therefore mapped rare plants have not been included in the table above

**Figure 5-1b. Preferred Riverine/Riverbank Construction Window to Avoid/Minimize Rare Species Impacts in Reach 5A**

Common Name	Scientific Name	January	February	March	April	May	June	July	August	September	October	November	December
American bittern	<i>Botaurus lentiginosus</i>												
Arrow clubtail	<i>Stylurus spiniceps</i>												
Brook snaketail	<i>Ophiogomphus asperses</i>												
Common moorhen	<i>Gallinula chloropus</i>												
Mustard white (Butterfly)	<i>Pieris oleracea</i>												
Ostrich fern borer moth	<i>Papaipema sp. 2 near pterisii</i>												
Rapids clubtail	<i>Gomphus quadricolor</i>												
Riffle snaketail	<i>Ophiogomphus carolus</i>												
Spine-crowned clubtail	<i>Gomphus abbreviates</i>												
Triangle floater	<i>Alasmidonta undulate</i>												
Wood turtle	<i>Glyptemys insculpta</i>												
Zebra clubtail	<i>Stylurus scudderii</i>												

 Preferred timing for riverine/riverbank construction  
 Construction during this period will likely increase adverse impacts to the species

Notes:

- Due to the removal of the plant species biomass and seed bank from sediment removal activities, it has been determined that there is no preferred construction window for plant species and therefore mapped rare plants have not been included in the table above.

**Figure 5-2a. Preferred Floodplain Construction Window to Avoid/Minimize Rare Species Impacts in Reach 5B**

Common Name	Scientific Name	January	February	March	April	May	June	July	August	September	October	November	December
American bittern	<i>Botaurus lentiginosus</i>	Green	Green	Green	Red	Red	Red	Red	Red	Red	Red	Green	Green
Arrow clubtail	<i>Stylurus spiniceps</i>	Green	Green	Green	Green	Green	Green	Red	Red	Red	Green	Green	Green
Jefferson salamander	<i>Ambystoma jeffersonianum</i>	Green	Green	Red	Red	Red	Red	Red	Red	Green	Green	Green	Green
Mustard white (Butterfly)	<i>Pieris oleracea</i>	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red
Rapids clubtail	<i>Gomphus quadricolor</i>	Green	Green	Green	Green	Green	Red	Red	Green	Green	Green	Green	Green
Spine-crowned clubtail	<i>Gomphus abbreviatus</i>	Green	Green	Green	Green	Red	Red	Red	Green	Green	Green	Green	Green
Wood turtle	<i>Glyptemys insculpta</i>	Green	Green	Green	Red	Red	Red	Red	Red	Red	Red	Green	Green
Zebra clubtail	<i>Stylurus scudderi</i>	Green	Green	Green	Green	Green	Green	Red	Red	Red	Green	Green	Green

- Preferred timing for floodplain construction
- Construction during this period will likely increase adverse impacts to the species

Notes:

- Since the terrestrial phase of the Jefferson salamander generally occurs underground in forested uplands, the floodplain construction window is based upon protecting the breeding pools within the PSA.
- Due to the removal of the plant species biomass and seed bank from soil and sediment removal activities, it has been determined that there is no preferred construction window for plant species and therefore mapped rare plants have not been included in the table above.

**Figure 5-2b. Preferred Riverine/Riverbank Construction Window to Avoid/Minimize Rare Species Impacts in Reach 5B**

Common Name	Scientific Name	January	February	March	April	May	June	July	August	September	October	November	December
American bittern	<i>Botaurus lentiginosus</i>	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red
Arrow clubtail	<i>Stylurus spiniceps</i>	Red	Red	Red	Red	Red	Red	Blue	Blue	Blue	Red	Red	Red
Mustard white (Butterfly)	<i>Pieris oleracea</i>	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red
Rapids clubtail	<i>Gomphus quadricolor</i>	Red	Red	Red	Red	Red	Blue	Blue	Red	Red	Red	Red	Red
Spine-crowned clubtail	<i>Gomphus abbreviatus</i>	Red	Red	Red	Red	Blue	Blue	Blue	Red	Red	Red	Red	Red
Wood turtle	<i>Glyptemys insculpta</i>	Red	Red	Red	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Red	Red
Zebra clubtail	<i>Stylurus scudderi</i>	Red	Red	Red	Red	Red	Red	Blue	Blue	Blue	Red	Red	Red

- Preferred timing for riverine/riverbank construction
- Construction during this period will likely increase adverse impacts to the species

Notes:

- The Jefferson salamander is not generally present in riverine/riverbank habitat and therefore is not included in the riverine/riverbank construction table above.
- Due to the removal of the plant species biomass and seed bank from soil and sediment removal activities, it has been determined that there is no preferred construction window for plant species and therefore mapped rare plants have not been included in the table above.

**Figure 5-3a. Preferred Floodplain Construction Window to Avoid/Minimize Rare Species Impacts in Reach 5C**

Common Name	Scientific Name	January	February	March	April	May	June	July	August	September	October	November	December
American bittern	<i>Botaurus lentiginosus</i>	Green	Green	Green	Red	Red	Red	Red	Red	Red	Red	Green	Green
Arrow clubtail	<i>Stylurus spiniceps</i>	Green	Green	Green	Green	Green	Green	Red	Red	Red	Green	Green	Green
Bald eagle	<i>Haliaeetus leucocephalus</i>	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red
Common moorhen	<i>Gallinula chloropus</i>	Green	Green	Green	Red	Red	Red	Red	Red	Red	Red	Green	Green
Jefferson salamander	<i>Ambystoma jeffersonianum</i>	Green	Green	Red	Red	Red	Red	Red	Red	Green	Green	Green	Green
Mustard white (Butterfly)	<i>Pieris oleracea</i>	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red
Rapids clubtail	<i>Gomphus quadricolor</i>	Green	Green	Green	Green	Green	Red	Green	Green	Green	Green	Green	Green
Water shrew	<i>Sorex palustris</i>	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red
Wood turtle	<i>Glyptemys insculpta</i>	Green	Green	Green	Red	Red	Red	Red	Red	Red	Red	Green	Green
Zebra clubtail	<i>Stylurus scudderi</i>	Green	Green	Green	Green	Green	Green	Red	Red	Red	Green	Green	Green

- Preferred timing for floodplain construction
- Construction during this period will likely increase adverse impacts to the species

Notes:

- Since the terrestrial phase of the Jefferson Salamander generally occurs underground in forested uplands, the floodplain construction window is based upon protecting the breeding pools in the PSA.
- Due to the removal of the plant species biomass and seed bank from soil removal activities, it has been determined that there is no preferred construction window for plant species and therefore mapped rare plants have not been included in the table above.

**Figure 5-3b. Preferred Riverine Construction Window to Avoid/Minimize Rare Species Impacts in Reach 5C**

Common Name	Scientific Name	January	February	March	April	May	June	July	August	September	October	November	December
American bittern	<i>Botaurus lentiginosus</i>	Blue	Blue	Blue	Red	Red	Red	Red	Red	Red	Red	Blue	Blue
Arrow clubtail	<i>Stylurus spiniceps</i>	Red	Red	Red	Red	Red	Red	Blue	Blue	Blue	Red	Red	Red
Bald eagle	<i>Haliaeetus leucocephalus</i>	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red
Common moorhen	<i>Gallinula chloropus</i>	Blue	Blue	Blue	Red	Red	Red	Red	Red	Red	Red	Blue	Blue
Rapids clubtail	<i>Gomphus quadricolor</i>	Red	Red	Red	Red	Red	Blue	Blue	Red	Red	Red	Red	Red
Water shrew	<i>Sorex palustris</i>	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red
Wood turtle	<i>Glyptemys insculpta</i>	Red	Red	Red	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Red	Red
Zebra clubtail	<i>Stylurus scudderi</i>	Red	Red	Red	Red	Red	Red	Blue	Blue	Blue	Red	Red	Red

- Preferred timing for riverine construction
- Construction during this period will likely increase adverse impacts to the species

Notes:

- There is no riverbank stabilization/remediation required under any alternative in Reach 5C.
- The Jefferson salamander and mustard white are not generally present in riverine habitat and therefore are not included in the riverine construction table above.
- Due to the removal of the plant species biomass and seed bank from sediment removal activities, it has been determined that there is no preferred construction window for plant species and therefore mapped rare plants have not been included in the tables above.