## F.6 Category 4c Waters

## Maryland's 2016 Final Integrated Report - Category 4c Waters

| Assessment Unit      | County        | Designated Use             | Cause                   | Indicator                                     | Notes                                                                                                                              |
|----------------------|---------------|----------------------------|-------------------------|-----------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|
| Basin Name           | Cycle Listed  | Water Type Detail          |                         | <b>Pollution Sources</b>                      |                                                                                                                                    |
| MD-02130203          | WI, WO        | Aquatic Life and Wildlife  | Channelization          | Direct Measurement                            | The Biostressor analysis indicates that                                                                                            |
| Upper Pocomoke River | 2012          | 1st thru 4th order streams |                         | Agriculture                                   | ditching is a major stressor affecting<br>biological integrity in this watershed. This<br>listing replaces the biological listing. |
| MD-02130203          | WI, WO        | Aquatic Life and Wildlife  | Lack of Riparian Buffer | Direct Measurement                            | The Biostressor analysis indicates that the lack of a riparian buffer is a maior stressor                                          |
| Upper Pocomoke River | 2012          | 1st thru 4th order streams |                         | Agriculture                                   | affecting biological integrity in this watershed. This listing replaces the biological listing.                                    |
| MD-02130305          | CA, DO,<br>WI | Aquatic Life and Wildlife  | Channelization          | Direct Measurement                            | The Biostressor analysis indicated that stream channelization due to agricultural distances of foreing                             |
| Nanticoke River      | 2016          | 1st thru 4th order streams |                         | Anthropogenic<br>Changes to Stream            | biological integrity in this watershed. This listing replaces the biological listing.                                              |
| MD-02130306          | CA, DO        | Aquatic Life and Wildlife  | Channelization          | Direct Measurement                            | The Biostressor analysis indicated that stream channelization due to agricultural                                                  |
| Marshyhope Creek     | 2012          | 1st thru 4th order streams |                         | Agriculture                                   | ditching is a major stressor affecting<br>biological integrity in this watershed. This<br>listing replaces the biological listing. |
| MD-02130404          | TA, QA,<br>CA | Aquatic Life and Wildlife  | Channelization          | Direct Measurement                            | The Biostressor analysis indicates that stream channelization due to agricultural                                                  |
| Upper Choptank River | 2012          | 1st thru 4th order streams |                         | Agriculture                                   | ditching is a major stressor affecting<br>biological integrity in this watershed. This<br>listing replaces the biological listing. |
| MD-02130510          | KE, QA        | Aquatic Life and Wildlife  | Channelization          | Direct Measurement                            | The Biostressor analysis indicates that stream channelization due to agricultural                                                  |
| Upper Chester River  | 2012          | 1st thru 4th order streams |                         | Agriculture                                   | ditching is a major stressor affecting<br>biological integrity in this watershed. This<br>listing replaces the biological listing. |
| MD-02130701          | НА            | Aquatic Life and Wildlife  | Channelization          | Direct Measurement                            | The Biostressor analysis indicated that channelization is a major stressor                                                         |
| Bush River           | 2014          | 1st thru 4th order streams |                         | Anthropogenic<br>Changes to Stream<br>Channel | affecting biological integrity in this watershed. This listing replaces the biological listing.                                    |

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| Basin Name              | Cycle Listed  | Water Type Detail          |                         | <b>Pollution Sources</b>                      |                                                                                                                                       |
| MD-02130701             | НА            | Aquatic Life and Wildlife  | Lack of Riparian Buffer | Direct Measurement                            | The Biostressor analysis indicated that                                                                                               |
| Bush River              | 2014          | 1st thru 4th order streams |                         | Urban Development in<br>Riparian Buffer       | stressor affecting biological integrity in this<br>watershed. This listing replaces the<br>biological listing.                        |
| MD-02130704             | HA            | Aquatic Life and Wildlife  | Channelization          | Direct Measurement                            | The Biostressor analysis indicates that stream channelization due to urban                                                            |
| Bynum Run               | 2012          | 1st thru 4th order streams |                         | Municipal (Urbanized<br>High Density Area)    | development is a major stressor affecting<br>biological integrity in this watershed. This<br>listing replaces the biological listing. |
| MD-02130705             | HA            | Aquatic Life and Wildlife  | Channelization          | Fish and Benthic IBIs                         | The Biostressor analysis indicated that total phosphorus is a major stressor                                                          |
| Aberdeen Proving Ground | 2014          | 1st thru 4th order streams |                         | Anthropogenic<br>Changes to Stream<br>Channel | affecting biological integrity in this watershed. This listing replaces the biological listing.                                       |
| MD-02130802             | ВА            | Aquatic Life and Wildlife  | Channelization          | Direct Measurement                            | The Biostressor analysis indicates that stream channelization due to urban                                                            |
| Lower Gunpowder Falls   | 2012          | 1st thru 4th order streams |                         | Municipal (Urbanized<br>High Density Area)    | development is a major stressor affecting<br>biological integrity in this watershed. This<br>listing replaces the biological listing. |
| MD-02130805             | BA, CR        | Aquatic Life and Wildlife  | Lack of Riparian Buffer | Direct Measurement                            | The Biostressor analysis indicates that lack of a riparian buffer is a major stressor                                                 |
| Loch Raven Reservoir    | 2014          | 1st thru 4th order streams |                         | Urban Development in<br>Riparian Buffer       | affecting biological integrity in this watershed. This listing replaces the biological listing.                                       |
| MD-02130901             | BA, BC        | Aquatic Life and Wildlife  | Lack of Riparian Buffer | Direct Measurement                            | The Biostressor analysis indicates that the lack of a riparian buffer is a major stressor                                             |
| Back River              | 2012          | 1st thru 4th order streams |                         | Loss of Riparian Habitat                      | affecting biological integrity in this watershed. This listing replaces the biological listing.                                       |
| MD-02130901             | BA, BC        | Aquatic Life and Wildlife  | Channelization          | Direct Measurement                            | The Biostressor analysis indicates that stream channelization due to urban                                                            |
| Back River              | 2012          | 1st thru 4th order streams |                         | Municipal (Urbanized<br>High Density Area)    | development is a major stressor affecting<br>biological integrity in this watershed. This<br>listing replaces the biological listing. |
| MD-02130903             | AA, BA,<br>BC | Aquatic Life and Wildlife  | Channelization          | Habitat Evaluation                            | The Biostressor analysis indicates that stream channelization is a major stressor                                                     |
| Baltimore Harbor        | 2014          | 1st thru 4th order streams |                         | Anthropogenic<br>Changes to Stream            | affecting biological integrity in this watershed. This listing, along with others, replace the biological listing.                    |

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|--------------------------------------|--------------------------|-----------------------------|-------------------------|--------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|
| Basin Name                           | Cycle Listed             | Water Type Detail           |                         | <b>Pollution Sources</b>                   |                                                                                                                                          |
| MD-02130903                          | AA, BA,<br>BC            | Aquatic Life and Wildlife   | Lack of Riparian Buffer | Habitat Evaluation                         | The Biostressor analysis indicates that the lack of an adequate riparian buffer is a                                                     |
| Baltimore Harbor                     | 2014                     | 1st thru 4th order streams  |                         | Urban Development in<br>Riparian Buffer    | major stressor affecting biological integrity<br>in this watershed. This listing, along with<br>others, replaces the biological listing. |
| MD-02130904                          | BA, BC                   | Aquatic Life and Wildlife   | Channelization          | Direct Measurement                         | The Biostressor analysis indicates that stream channelization due to urban                                                               |
| Jones Falls                          | 2012                     | Non-tidal 8-digit watershed |                         | Municipal (Urbanized<br>High Density Area) | development is a major stressor affecting<br>biological integrity in this watershed. This<br>listing replaces the biological listing.    |
| MD-02130905                          | BA, BC                   | Aquatic Life and Wildlife   | Channelization          | Direct Measurement                         | The Biostressor analysis indicates that stream channelization due to urban                                                               |
| Gwynns Falls                         | 2012                     | Non-tidal 8-digit watershed |                         | Municipal (Urbanized<br>High Density Area) | development is a major stressor affecting<br>biological integrity in this watershed. This<br>listing replaces the biological listing.    |
| MD-02130906                          | AA, BA,<br>BC, HO,<br>CR | Aquatic Life and Wildlife   | Channelization          | Direct Measurement                         | The Biostressor analysis indicates that<br>stream channelization due to urban<br>development is a major stressor affecting               |
| Patapsco River Lower North<br>Branch | 2012                     | 1st thru 4th order streams  |                         | Municipal (Urbanized<br>High Density Area) | biological integrity in this watershed. This listing replaces the biological listing.                                                    |
| MD-02131003                          | AA                       | Aquatic Life and Wildlife   | Lack of Riparian Buffer | Direct Measurement                         | The Biostressor analysis indicates that the lack of an adequate riparian buffer is a                                                     |
| South River                          | 2014                     | 1st thru 4th order streams  |                         | Urban Development in<br>Riparian Buffer    | major stressor affecting biological integrity<br>in this watershed. This listing, along with<br>others, replaces the biological listing. |
| MD-02140205                          | MO, PG                   | Aquatic Life and Wildlife   | Lack of Riparian Buffer | Direct Measurement                         | The Biostressor analysis indicates that the lack of a riparian buffer is a major stressor                                                |
| Anacostia River                      | 2012                     | 1st thru 4th order streams  |                         | Loss of Riparian Habitat                   | affecting biological integrity in this watershed. This listing replaces the biological listing.                                          |
| MD-02140205                          | MO, PG                   | Aquatic Life and Wildlife   | Channelization          | Direct Measurement                         | The Biostressor analysis indicates that stream channelization due to urban                                                               |
| Anacostia River                      | 2012                     | 1st thru 4th order streams  |                         | Municipal (Urbanized<br>High Density Area) | development is a major stressor affecting<br>biological integrity in this watershed. This<br>listing replaces the biological listing.    |
| MD-02140207                          | МО                       | Aquatic Life and Wildlife   | Channelization          | Direct Measurement                         | The Biostressor analysis indicates that stream channelization due to urban                                                               |
| Cabin John Creek                     | 2012                     | Non-tidal 8-digit watershed |                         | Municipal (Urbanized<br>High Density Area) | development is a major stressor affecting<br>biological integrity in this watershed. This<br>listing replaces the biological listing.    |

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|----------------------------------|---------------|-----------------------------|-------------------------|-----------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|
| Basin Name                       | Cycle Listed  | Water Type Detail           |                         | <b>Pollution Sources</b>                      |                                                                                                                                       |
| MD-02140302                      | CR, FR,<br>MO | Aquatic Life and Wildlife   | Lack of Riparian Buffer | Direct Measurement                            | The Biostressor analysis indicates that the lack of a riparian buffer is a major stressor                                             |
| Lower Monocacy River             | 2012          | Non-tidal 8-digit watershed |                         | Agriculture                                   | affecting biological integrity in this watershed. This listing replaces the biological listing.                                       |
| MD-02140502                      | WA            | Aquatic Life and Wildlife   | Channelization          | Habitat Evaluation                            | The Biostressor analysis indicates that<br>channelization is a major stressor                                                         |
| Antietam Creek                   | 2014          | 1st thru 4th order streams  |                         | Anthropogenic<br>Changes to Stream<br>Channel | affecting biological integrity in this watershed. This listing replaces the biological listing.                                       |
| MD-02140502                      | WA            | Aquatic Life and Wildlife   | Lack of Riparian Buffer | Habitat Evaluation                            | The Biostressor analysis indicates that the lack of a riparian buffer is a major stressor                                             |
| Antietam Creek                   | 2014          | 1st thru 4th order streams  |                         | Agriculture                                   | affecting biological integrity in this watershed. This listing replaces the biological listing.                                       |
| MD-02141002                      | AL            | Aquatic Life and Wildlife   | Lack of Riparian Buffer | Direct Measurement                            | The Biostressor analysis indicates that the lack of a riparian buffer is a major stressor                                             |
| Evitts Creek                     | 2012          | Non-tidal 8-digit watershed |                         | Loss of Riparian Habitat                      | affecting biological integrity in this watershed. This listing replaces the biological listing.                                       |
| MD-02141003                      | AL, GA        | Aquatic Life and Wildlife   | Channelization          | Direct Measurement                            | The Biostressor analysis indicated that<br>stream channelization due to urban                                                         |
| Wills Creek                      | 2012          | Non-tidal 8-digit watershed |                         | Municipal (Urbanized<br>High Density Area)    | development is a major stressor affecting<br>biological integrity in this watershed. This<br>listing replaces the biological listing. |
| MD-05020201-<br>Wadeable_Streams | GA            | Aquatic Life and Wildlife   | Lack of Riparian Buffer | Habitat Evaluation                            | The Biostressor analysis indicates that the lack of a riparian buffer is a major stressor                                             |
| Youghiogheny River               | 2014          | 1st thru 4th order streams  |                         | Urban Development in<br>Riparian Buffer       | watershed. This listing addresses a<br>portion of the biological listing and<br>therefore replaces it on the list.                    |