

## Frequently Asked Questions

### Impact Areas

#### **Question: What is an Impact?**

**Answer:** They are the spatial areas of streams, floodways, wetlands, and other bodies of water being affected by the water obstruction and encroachment. The term impact is not inherently a negative or positive term. Impacts can be beneficial or negative/adverse to the aquatic resource (See flowchart at end of document).

**For Example:** On a stream with eroding stream banks, both the installation of a concrete retaining wall as bank protection and grading of the stream banks to stable slopes with native vegetative planting are impacts.

#### **Question: What is a Permanent Impact?**

##### **Answer:**

**Definition:** Those areas affected by a water obstruction or encroachment that consist of both direct and indirect impacts that result from the placement or construction of a water obstruction or encroachment and include areas necessary for the operation and maintenance of the water obstruction or encroachment located in, along or across, or projecting into a watercourse, floodway or body of water.

Examples of permanent impacts include fills, bridges, culverts, pipelines, and the areas required for their operation and maintenance (See flowchart at end of document) (This definition is adapted from 25 Pa. Code § 105.15, Environmental Assessment Form (3150-PM-BWEW0017) and Alternatives Analysis Technical Guidance (310-2100-002)).

**For Example:** On a stream with eroding stream banks, both the installation of a concrete retaining wall as bank protection and the grading of the stream banks to stable slopes with native vegetative planting are permanent impacts, because they result in a permanent alteration to the aquatic resource.

#### **Question: What is a Temporary Impact?**

##### **Answer:**

**Definition:** Those areas affected during the construction of a water obstruction or encroachment that consists of both direct and indirect impacts located in, along or across, or projecting into a watercourse, floodway or body of water that are restored upon completion of construction. This does not include areas that will be maintained as a result of the operation and maintenance of the water obstruction or encroachment located in, along or across, or projecting into a watercourse, floodway or body of water (these are considered permanent impacts) (See flowchart at end of document).

Examples of temporary impacts include temporary workspaces and temporarily dewatered areas (See flowchart at end of document) (This definition is adapted from 25 Pa. Code § 105.15, Environmental Assessment Form (3150-PM-BWEW0017) and Alternatives Analysis Technical Guidance (310-2100-002)).

They are typically associated with temporary construction impacts such as temporary work areas, temporary road crossings, etc.

**Question: How are operation and maintenance areas handled, such as utility and bridge rights-of-ways?**

**Answer:** Permanent impacts also include the permanent operation and maintenance of water obstructions and encroachments in streams, floodways, wetlands, and bodies of water. This can include maintenance areas in rights-of-way such as utility lines and around bridges and culverts **where maintenance in the aquatic resources will be conducted.** If no operation or maintenance is proposed, then, in general, there would not be a permanent impact from the ROW. Operation and maintenance permanent impacts are often further categorized as indirect impacts (see indirect impact below).

**Question: What is a Direct Impact?**

**Answer:**

**Definition:** consists of filling or draining an aquatic resource, converting an aquatic resource to a nonaquatic environment (i.e., upland or terrene), or converting an aquatic resource from one type to another type, such as converting a palustrine wetland to a lacustrine open body of water. Examples of direct impacts may include: placement of fill in a wetland; placement of fill in the floodway; placement of a structure (e.g., culvert) or rock in a stream; or building a dam where the impoundment area will flood existing resources (e.g., stream channel, floodway, and/or wetlands) with a sufficient depth as to change the existing aquatic resource to another type of aquatic resource. Direct impacts include changes such as converting a riverine system to a lacustrine system (i.e., damming) or changing a palustrine wetland to a lacustrine system (See flowchart at end of document) (This definition is adapted from 25 Pa. Code § 105.15, Environmental Assessment Form (3150-PM-BWEW0017) and Alternatives Analysis Technical Guidance (310-2100-002)).

**Question: What is an Indirect Impact?**

**Answer:**

**Definition:** consists of altering the chemical, physical, or biological characteristics of an aquatic resource to an extent that changes the functions of the resource. Indirect impacts change resource functions, but generally do not result in a loss of resource acreage. Examples of indirect impacts include: the conversion of a forested wetland system to a non-forested state through chemical, mechanical, or hydrologic manipulation that results in a maintained state of vegetation; altered hydrologic conditions (increases or decreases), such as stormwater discharges or water withdrawals, that alter the chemical, physical, or biological functions of the resource; scouring of a watercourse due to changes in flow velocity; maintenance of areas such as waterway openings (e.g., bedload deposition removal); and right of ways through aquatic resources (See flowchart at end of document) (This definition is adapted from 25 Pa. Code § 105.15, Environmental Assessment Form (3150-PM-BWEW0017) and Alternatives Analysis Technical Guidance (310-2100-002)).

**Question: How should impacts be tallied when there are multiple resources which overlap (i.e. wetland in a floodway)?**

**Answer:**

As discussed in the *Structures and Activity FAQ*, one structure may cross a wetland, floodway, and stream at a single location. A single structure may be linked to the stream, wetland, and floodways impact entries, each of which are totaled for all structures associated with the entire project. While there are times where these resources may have overlapping spatial areas, it is important to identify the area of

each aquatic resource. The area of each aquatic resource is important for documenting the area of impact to that resource, permit conditions and review, and potential compensatory mitigation. Note: Impact area reporting is different than determining the area of aquatic resource disturbance for fee calculations, see DEP's fee [Chapter 105 Calculation Worksheet Document #3150-PM-BWEW0553](#).

For example, a wetland which is wholly within a floodway, where there is 0.1 acre of wetland fill proposed and 0.3 acre of floodway fill proposed would be reported as these areas. It is important that the floodway impact area not be reduced to 0.2 acre for impact reporting as that would not be an accurate reflection of the impacts to the floodway for both review and understanding of the project impacts. Further, including the wetland under the floodway impact (0.3 acre floodway impact and 0.0 acre of wetland impact) area would also not be a clear or accurate portrayal as in certain cases this may not qualify for a specific general permit with those wetland impacts, etc.

## Impacts:

The spatial areas of streams, floodways, wetlands, and other bodies of water being affected by the water obstruction and encroachment.

### Permanent:

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### Temporary:

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### Direct:

Consist of filling or draining an aquatic resource, or converting an aquatic resource to a nonaquatic environment (i.e., upland or terrene), or converting an aquatic resource from one type to another type, such as converting a palustrine wetland to a lacustrine open body of water. Examples of direct impacts may include: placement of fill in a wetland; placement of fill in the floodway; placement of a structure (e.g., culvert) or rock in a stream; or building a dam where the impoundment area will flood existing resources (e.g., stream channel, floodway and/or wetlands) with a sufficient depth as to change the existing aquatic resource to another type of aquatic resource. Direct impacts include changes such as converting a riverine system to a lacustrine system (i.e., damming) or changing a palustrine wetland to a lacustrine system.

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Consist of altering the chemical, physical, or biological characteristics of an aquatic resource to an extent that changes the functions of the resource. Indirect impacts change resource functions, but generally do not result in a loss of resource acreage. Examples of indirect impacts include: the conversion of a forested wetland system to a non forested state through chemical, mechanical, or hydrologic manipulation that results in a maintained state of vegetation; altered hydrologic conditions (increases or decreases) such as stormwater discharges or water withdrawals that alter the chemical, physical, or biological functions of the resource; scouring of a watercourse due to changes in flow velocity; maintenance of areas such as waterway openings (e.g., bedload deposition removal); and right of ways through aquatic resources.