Blackfeet Tribe Aquatic Resources Compensatory Mitigation Policy

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INTRODUCTION

This document describes the process of mitigation for any loss of aquatic resources (waters of the Tribe) within the exterior boundaries of the Blackfeet Reservation. The Blackfeet Tribe's Aquatic Resources Compensatory Mitigation Policy includes protection for all water bodies and wetlands of the Reservation. Any action or construction that has the potential to impact a wetland or other aquatic resource must first ***avoid*** and ***minimize*** impacts, and then ***compensate*** for unavoidable impacts.

All compensatory mitigation projects within the exterior boundaries of the Blackfeet Indian Reservation must fully off-set impacts to wetlands and aquatic resources under Section 404 of the Clean Water Act (CWA) of 1972, and fully comply with the Environmental Protection Agency (EPA) and Department of the Army Corps of Engineers (the Corps) regulations as described in the "Compensatory Mitigation for Losses of Aquatic Resources; Final Rule" (2008). Compensatory mitigation projects within the Reservation must also comply with Blackfeet Environmental Office aquatic resource mitigation requirements, as described within the body of this document. All wetlands and aquatic resources, including isolated wetlands, are subject to compensatory mitigation requirements. This includes mitigation procedures in order of priority: 1) Preservation, 2) Restoration, 3) Enhancement and 4) Establishment.

BACKGROUND

The basis of the Clean Water Act was passed in 1948 (https://www.epa.gov/wotus-rule/about-waters-united-states). In 1972 the Clean Water Act was significantly reorganized and expanded. Since the passage of the expanded Clean Water Act in 1972, various laws, regulations and Executive Orders have been enacted to protect wetlands and aquatic resources. There have also been several Supreme Court cases that have further defined the meaning of "waters of the United States".

One of the difficulties in applying the Clean Water Act is the changing definition of what it regulates, known as "waters of the United States".

The Federal Register Clean Water Rule: Definition of "Waters of the United States" (2015) states that "The jurisdictional scope of the CWA is "navigable waters," defined in section 502(7) of the statute as "waters of the United States, including the territorial seas'." It also states: "However, while there is only one CWA definition of "waters of the United States", there may be other statutory factors that define the reach of a particular CWA program or provision." Although the Clean Water Act states the jurisdictional scope is navigable waters and territorial seas, the existing regulations for the Clean Water Act define waters of the United States more broadly, including impoundments of waters of the United States, tributaries, and adjacent wetlands.

EPA's website, at https://www.epa.gov/cwa-404/definition-waters-united-states-under-clean-water-act contains the following information concerning the definition of "waters of the United States". "In 2015 the US Environmental Protection Agency and the US Army Corps of Engineers published the Clean Water Rule (2015) in the Federal Register, known as the Waters of the United States Rule, in order to more clearly define waters of the United States under the Clean Water Act of 1972. This rule has been stayed by the U.S. Court of Appeals for the Sixth Circuit. In response to this stay, EPA, Department of Army, and Army Corps of Engineers resumed nationwide use of the agencies' prior regulations defining the term "waters of the United States." On February 28, 2017, the President of the United States issued an Executive Order directing EPA and Department of the Army to review and rescind or revise the 2015 Rule. EPA, Department of Army, and the Army Corps of Engineers are in the process of reviewing the 2015 rule and considering a revised definition of "waters of the United States" consistent with the Executive Order."

Currently the definition of "waters of the United States" being used by the Corps and EPA is the one promulgated in 1986 and 1988, further defined by several Supreme Court decisions including *Rapanos v. United States, Carabell v. United States,* and *Solid Waste Agency of Northern Cook County (SWANCC) v. United States* and several guidance documents.

The 1986/1988 definition of waters of the US taken from EPA's website https://www.epa.gov/wotus-rule/about-waters-united-states is listed below:

"40 CFR 230.3(s) The term waters of the United States means:

1. All waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;
2. All interstate waters including interstate wetlands;
3. All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect interstate or foreign commerce including any such waters:
    a. Which are or could be used by interstate or foreign travelers for recreational or other purposes; or
    b. From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or
    c. Which are used or could be used for industrial purposes by industries in interstate commerce;
4. All impoundments of waters otherwise defined as waters of the United States under this definition;
5. Tributaries of waters identified in paragraphs (s)(1) through (4) of this section;
6. The territorial sea;
7. Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs (s)(1) through (6) of this section; waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of CWA (other than cooling ponds as defined in 40

CFR 423.11(m) which also meet the criteria of this definition) are not waters of the United States.

Waters of the United States do not include prior converted cropland. Notwithstanding the determination of an area's status as prior converted cropland by any other federal agency, for the purposes of the Clean Water Act, the final authority regarding Clean Water Act jurisdiction remains with EPA."

The recent changes in the Federal definition of "waters of the United States" affect how jurisdiction is determined for Federal purposes. It doesn't affect how the Tribe determines jurisdiction over its aquatic resources which will be explained later in this document.

The protection of wetlands and aquatic resources has become an important environmental issue over the last several decades on the Blackfeet Indian Reservation. In 1993, the Tribe enacted its own aquatic resource protection laws under the Aquatic Lands Protection Ordinance No. 90. Ordinance 90 was revised in 2002 and renamed Ordinance 90-A. Ordinance 90-A has recently been updated and amended, taking into account current and future impacts to wetlands and aquatic resources on the Reservation. Ordinance 90-A is an integral part of the development, implementation and enforcement of water resource protection on the Blackfeet Reservation, including wetlands. The Tribe also has Water Quality Standards, a Section 319 (non-point source) program and a Wetland Program Plan to further protect water resources.

The Clean Water Act (1972), supported by Ordinance 90-A (2002) requires that when a wetland is going to be impacted, action must be taken first to avoid and minimize the impact, then compensate for any remaining impacts through mitigation. Types of mitigation covered in this document (in order of priority) include wetland preservation, restoration, enhancement, and establishment (creation).

With this document the Blackfeet Tribe has revised their aquatic resources mitigation policy, protocol and performance standards to reflect some of the changes in federal regulations; and have added additional requirements and regulations to reflect the importance of preservation, protection and restoration of the Tribes highly valuable and unique wetland, aquatic and riparian resources.

The Clean Water Rule (2015) declares that states and federally-recognized tribes retain full authority to implement their own programs to more broadly and fully protect the waters in their jurisdiction. Under section 510 of the Clean Water Act, nothing in the CWA precludes or denies the right of any state or tribe to establish more protective standards or limits than the Federal CWA. It also states that "Tribes also have inherent sovereign authority to establish more protective standards or limits than the Federal CWA".

The Blackfeet Tribe's Aquatic Resources Compensatory Mitigation Policy (this document) defines waters of the Tribe as the following: all waters recognized as "waters of the United States" by Federal regulation; all lakes, ponds and streams within the Reservation whether man-made or naturally occurring, isolated wetlands, ephemeral streams, and wetlands formed in association with irrigation canals and water diversion/impoundment infrastructure.

A number of wetlands have emerged by subsurface seepage adjacent to canals, canal berms and impoundments in association with water diversion and irrigation canals that were constructed in the past. Most of these wetlands are narrow bands of wetland or riparian vegetation or occur in areas of topographic lows. These wetlands exhibit hydric soil indicators as a result of subsurface seepage or water movement and support wetland vegetation and varying hydrologic periods, depending on site. The Tribe feels these wetlands are important aquatic resources and wishes to protect them. Future renovations and improvements to water diversion zones and canals may result in the loss of these recently created and well established wetlands and mitigation will be required for these losses.

The standards in the new Mitigation Rule (2008) clearly require that permit applicants adhere to the "mitigation sequence" of "avoid, minimize and compensate": Any permit applicant on the Blackfeet Reservation applying for a permit to impact a wetland or other aquatic resource must first ***avoid*** and ***minimize*** impacts, and then ***compensate*** for unavoidable impacts.

Under the revised 2008 regulations, the U.S. EPA has added a new paragraph at 40 CFR 230.93(e)(3) that specifically states that there are some aquatic resource types that are difficult to replace, which includes streams and fens. It emphasizes the need to avoid and minimize impacts to these 'difficult-to-replace' resources and requires that any mitigation be provided by in-kind preservation, restoration, or enhancement to the extent practicable. This language is intended to eliminate impacts to streams and other sensitive wetland types such as fens. Impacts to streams and other sensitive wetlands prior to establishment of these standards will require mitigation by the permittee in the form of stream corridor and sensitive wetland restoration (via restoration/rehabilitation). There is no evidence in the body of scientific literature that streams, springs, fens or other 'difficult-to-replace' wetland types can be created or established to compensate for the functional, ecological and biodiversity losses to these types of aquatic resources within an acceptable timeframe.

MITIGATION PLAN REQUIREMENTS

Permit applications that adversely affect wetlands or aquatic resources must provide a mitigation plan that includes:

1. Measurable and enforceable ecological performance standards for all types of mitigation so that project success can be evaluated;
2. Regular monitoring to document that mitigation sites achieve ecological performance standards;
3. Specific components of a complete mitigation plan based on the principles of aquatic ecosystem science (Compensatory Mitigation for Losses of Aquatic Resources; Final Rule, 2008); and
4. The use of science-based assessment procedures to evaluate the extent of potential water resource impacts and the success of mitigation.

"IN-KIND" VERSUS "OUT-OF-KIND" MITIGATION

Compensatory mitigation may be "in-kind" or "out-of-kind". In-kind mitigation is preferable to out-of-kind mitigation. In-kind mitigation is defined here as the replacement of an aquatic resource with an aquatic resource of a similar structural and functional type. When mitigation is in-kind, the functions of the replacement aquatic resource are assumed to be generally the same as those of the aquatic resource being replaced. Out-of-kind mitigation may be acceptable if it is determined to be ecologically preferable to in-kind mitigation. The reasons for choosing out-of-kind replacement should be documented as part of the permitting process. Examples of when out-of-kind mitigation may be preferable are:

1. Where a particular aquatic resource habitat type is prevalent, it may be ecologically preferable to compensate with habitat types that are rare or less common.

2. When in-kind habitat replacement is not practical or technically feasible.

For in-kind mitigation of wetlands the mitigation wetland should be of the same Cowardin Class and Hydrogeomorphic (HGM) Class as the impacted wetland if possible. The mitigation wetland should also be of the same Wetland Ecological System as the impacted wetland as defined by the Montana Natural Heritage Program if possible (2017).

Table 1:

HGM Classes	*Cowardin Classes*
Riverine	Emergent
Slope	Scrub-shrub
Depressional	Forested
Lacustrine Fringe	Aquatic Bed

AQUATIC RESOURCES MITIGATION OVERVIEW

There are three methods of aquatic resources mitigation allowed under this policy.

1. Permittee-responsible Mitigation -The permittee is responsible for the preservation, restoration, enhancement or establishment of the wetland mitigation site in order to mitigate for aquatic resource impacts. The permittee performs mitigation after obtaining the necessary permits and is responsible for the implementation and success of the wetland mitigation site. The site may be located adjacent to the proposed project, within the same watershed, or in a different watershed as explained below in "Site Selection" Part 3.

2. Mitigation Banking - A mitigation bank is a wetland, stream, or other aquatic resource area that has been restored, established, enhanced, or (in certain circumstances) preserved for the purpose of providing mitigation for unavoidable impacts to aquatic resources permitted under Section 404 or a similar state or local wetland regulation (Compensatory Mitigation for Losses of Aquatic Resources; Final Rule, 2008). Mitigation banks are sites that have been set aside for preservation, restoration, establishment or enhancement

in order to mitigate for future or proposed aquatic resource impacts. The permittee can purchase mitigation banking credits from the Blackfeet Tribe or another mitigation bank sponsor in order to meet the mitigation requirements for aquatic resource impacts. The permittee can also utilize bank credits from an existing mitigation bank within the Reservation boundary.

A mitigation bank may be created when a government agency, corporation, nonprofit organization, or other entity undertakes these activities under a formal agreement with a regulatory agency and/or the Blackfeet Tribe. Mitigation banks have four distinct components:

a) The bank site: the physical acreage restored, established, enhanced, or preserved;

b) The bank instrument: the formal agreement between the bank owners and regulators establishing liability, performance standards, management and monitoring requirements, and the terms of bank credit approval;

c) The Interagency Review Team (IRT): the interagency team that provides regulatory review, approval, and oversight of the bank;

d) The service area: the watershed within the Blackfeet Indian Reservation in which permitted impacts can be compensated for at a given wetland bank site.

3. In-lieu Fee Mitigation- This wetland mitigation mechanism involves the transfer of funds to an in-lieu fee sponsor (Agency or Non-profit) to purchase credits for compensatory mitigation purposes. Credits are typically purchased before the mitigation project is built. In-lieu Fee Mitigation typically occurs after wetland impacts have occurred and is usually off-site. The operation and use of an in-lieu fee program is governed by an in-lieu fee program instrument.

SITE SELECTION

All compensatory mitigation for impacts to aquatic resources on the Blackfeet Reservation will occur within the exterior boundaries of the Blackfeet Reservation. The revised Mitigation Rule regulations emphasize that the process of selecting a location for compensation sites should be driven by assessments of watershed needs and how specific aquatic resource restoration and protection projects can best address those needs. Specifically, the new revisions include:

1. Compensatory mitigation sites that are chosen should be within the same watershed as the impacted wetland if at all possible. If not the procedures in Part 3 below should be used.

2. Wetland mitigation sites should be of the same Hydrogeomorphic (HGM) Class and Cowardin Class as the impacted site (Table 1). If possible the site should also be of the same Wetland Ecological System as the impacted site.

3. Reasons for choosing off-site replacement should be documented as part of the permitting process. The order of preference for the location of a mitigation site is:

    a) On-site - connected to or contiguous with the impacted resources.

    b) Off-site - within the same watershed of the nearest perennial stream.

    c) Off-site - within a different watershed of the nearest perennial stream.

4. Any mitigation site should also meet the following criteria:

    a) The site must possess the physical, chemical and biological characteristics to support and sustain the lost functions and ecological value of the impacted resources.

    b) The mitigation site must possess a dependable and adequate water supply.

    c) The site must be compatible with existing and planned adjacent land uses.

    d) The site must not jeopardize existing ecologically significant aquatic or upland resources.

    e) The site must not jeopardize cultural sites or uses.

    f) The site must not jeopardize habitat for Tribal Species of Concern and federally listed threatened or endangered species.

AREAS EXCLUDED FROM COMPENSATORY MITIGATION

Tribal, federal, or state-funded aquatic resource conservation projects implemented for other purposes cannot be used for the purpose of replacing aquatic resource losses permitted through the Tribal and Federal regulations concerning aquatic resources. However mitigation credit may be given for activities implemented in conjunction with, but supplemental to, these programs in order to maximize the overall ecological benefit of the project. Mitigation credit is defined further in Part 6 of "Blackfeet Tribe General Mitigation Regulations".

LONG-TERM MANAGEMENT AND PROTECTION

Compensatory mitigation sites may be protected through title transfers, permanent easements or similar instruments, or as a condition of a permit. Such arrangements should effectively restrict incompatible uses that might jeopardize the purpose of the mitigation project. The long term management and protection plan must be documented as part of the permitting process.

BLACKFEET TRIBE GENERAL MITIGATION REGULATIONS

1. Mitigation proposals must be compatible with Tribal watershed management plans that include other natural resource management concerns such as special wildlife management areas, wildlife corridors, natural area trust preserves, outstanding resource waters and wetlands, and special protection aquatic resources (such as streams, springs and fens).

2. The proposed mitigation site must be located within the same watershed as the impacted resource, and where it is most likely to replace lost functional values, such as habitat, biodiversity and connectivity to other aquatic resources. The proposed mitigation site must replace impacted aquatic resources with aquatic resources that are of the same habitat type and are of a similar structural and functional type as the impacted resource which is called in-kind replacement as explained previously in this document. The proposed mitigation site must achieve, through management actions and by measuring ecological performance standards through long-term monitoring, a measurable level of aquatic resource condition and water quality improvement equal to or greater than the impacted aquatic resource.

3. All proposed impacted aquatic resources and proposed compensatory mitigation sites must undergo baseline water quality and aquatic resource condition and associated upland buffer assessment monitoring prior to the issuance of permits and development of compensatory mitigation projects.

4. Pre-disturbance assessment and monitoring will include rare plant surveys in wetlands and upland buffers proposed to be cleared during construction. If rare or sensitive species are found and impacts to those populations are unavoidable, the permittee is required to provide the Tribe with GPS points of those populations and plans to salvage and relocate rare plants to suitable habitat.

5. Difficult to replace aquatic resources and riparian areas (special status wetlands, land trust reserves, outstanding wetlands under the Blackfeet Wetlands Conservation Strategy and Wetland Program Plan) and other difficult-to-replace functional aquatic resources such as streams, fens and springs, shall be protected from impacts to the greatest extent possible.

6. A mitigation ratio is the amount of aquatic resource that must be preserved, restored, enhanced or established to replace the amount of aquatic resource that is impacted. Mitigation ratios are usually in acres or linear feet impacted and acres or linear feet of mitigation required. The Blackfeet Tribe's mitigation ratios are based on the type of aquatic resource that is impacted. A mitigation ratio of 3:1 means that for every one acre of aquatic resource impact, three acres must be preserved, restored, enhanced or established. The minimum mitigation ratio is 3:1 for prairie potholes, prairie depressional wetlands, vernal pools, marshes, and scrub-shrub wetlands. The minimum ratio is 4:1 for wet meadows, fens, forested potholes, streams and rivers. Mitigation sites that are selected will be located in the same watershed as the impacted aquatic resource to the greatest extent practicable. These ratios apply to all entities that do compensatory

mitigation on the Reservation. The Tribe doesn't negotiate compensatory mitigation ratios with permittees. See Table 2 for mitigation ratios.

Table 2. Summary of Aquatic Resource Mitigation Ratios

Wetland Type	**Mitigation Ratio**
Prairie potholes, prairie depressional wetlands, vernal pools, marshes, scrub-shrub wetlands	3:1
Wet meadow, forested wetlands, fens, forested potholes	4:1
Streams and rivers	4:1
Upland buffer	5:1

7. A mitigation credit is a unit of measure (usually an acre or linear foot) representing the accrual or attainment of aquatic functions at a compensatory mitigation site. The measure of aquatic functions is based on the resources restored, established, enhanced, or preserved.

8. If a project will impact five acres of prairie pothole habitat, then the Tribe will use the mitigation ratio of 3:1 to calculate how much mitigation is required. In this example fifteen acres of prairie pothole habitat will need to be preserved, restored, enhanced or established. The permittee's mitigation plan will describe how this will be accomplished. At the end of the required five or ten year monitoring period, the mitigation site will be assessed to determine if it has achieved the fifteen acres of mitigation credit necessary to meet the permit conditions. If the site meets the fifteen acres of mitigation credit and all other performance standards are met then the site can be released from annual monitoring requirements and move to monitoring every five years until year twenty is reached.

9. The mitigation site must be in similar condition or can be restored to a higher level of ecological condition than the impacted resources. Considerations must include, but are not limited to, water quality, buffer integrity and condition, wetland biodiversity, wetland rarity, watershed position, surface water connectivity, proximal connectivity to other wetlands, wetland ecological condition, and landscape position.

10. Under no circumstances may the same compensatory mitigation credits be used to provide mitigation for more than one permitted activity; including multiple operations on the same site, that may impact surface or groundwater water quality or associated wetland condition due to multiple activities.

11. If it is determined that one or more unpermitted events compromised aquatic resource integrity or water quality, mitigation credits issued prior to the multiple event(s) (i.e. mitigation bank credits) cannot be used for compensatory mitigation.

12. A Tribal water use permit is required when water is diverted to a compensatory mitigation site. The water use permit may be negotiated as part of the agreement with the Blackfeet Tribe for the mitigation project.

PROPOSED AQUATIC RESOURCE MITIGATION PROJECT REQUIREMENTS

Any proposed aquatic resource mitigation project within the Blackfeet Indian Reservation must include the following requirements (Compensatory Mitigation for Losses of Aquatic Resources; Final Rule, 2008):

1. Mitigation Site Agreement: Following approval of the compensatory mitigation site and the development of the mitigation plan and issuance of permits, the permittee must sign and date a formal agreement with the Blackfeet Tribe; that legally binds the permittee to a measurable completion of the mitigation project. This includes a description of the responsible parties, the contact information or corporate contact information. The parties to the agreement typically include the Blackfeet Tribe, the permittee, and may include the Bureau of Indian Affairs (BIA), other government agencies, land trusts, and private landowners. The agreement must detail who is responsible for completing each task and when the task must be completed. The agreement must be notarized. The agreement must include the items listed below which are further described in items two through twelve below:

    a. Description of type and location of wetland mitigation project
    b. Baseline water quality, aquatic resource condition and associated natural upland buffer condition
    c. Mitigation work plan and schedule
    d. Maintenance plan
    e. Ecological performance standards
    f. Monitoring requirement, protocol and schedule
    g. Financial assurances and agreements
    h. Specific site selection factors
    i. Credit determination and requirements
    j. Long-term management plan
    k. Adaptive management plan

2. Description of type and location of wetland mitigation project: A description of aquatic resource type (in-kind), watershed position, relative landscape position to other aquatic resources within the watershed, a description of the hydrology of the site, GPS location, USGS quad location, wetland delineation, and maps of proposed project site.

3. Baseline water quality, aquatic resource condition and associated natural upland buffer condition of proposed mitigation site: A summary and analysis of aquatic resource water quality and condition using Blackfeet Environmental Office approved monitoring protocols.

4. Mitigation work plan and schedule: A mitigation work plan that specifically describes restoration, enhancement, establishment or preservation activities must be submitted for approval. This includes a schedule of activities to ensure there is no "temporal loss" of aquatic resource function during the mitigation period.

5. Maintenance plan: A mitigation maintenance plan must be included to ensure that hydrologic and ecological function and recovery, via restoration, preservation, establishment or enhancement, will continue following completion of mitigation activities. This includes inspection of and replacement of culverts or other features used to restore hydrology and ecosystem integrity, weed management plans if applicable, and similar maintenance activities for the duration of the project. The maintenance plan will be used to determine if the mitigation site has achieved an equal or higher level of ecological integrity and water quality than the impacted site.

6. Ecological performance standards: Permittee will follow and monitor ecological performance standards, using Blackfeet Environmental Office mitigation standards and aquatic resource condition monitoring protocol until it is determined the mitigation site has achieved an equal or higher level of ecological integrity and water quality than the impacted site. Mitigation Performance Standards are described later in this document.

7. Monitoring requirement, protocol and schedule: Permittee will monitor the mitigation site, using a qualitative and quantitative monitoring protocol approved by the Blackfeet Environmental Office every year, until it is determined that ecological integrity and water quality are equal to or higher than the impacted site prior to project implementation. A wetland delineation of the site must be included. Monitoring reports will be required every year, and must include and demonstrate a measurable improvement to aquatic resource condition and water quality over the duration of the monitoring period.

8. Financial assurances and agreements: The permittee will be required to demonstrate funds for all mitigation, maintenance and monitoring requirements and activities throughout the mitigation period. Any funding arrangement used for preservation activities of Blackfeet wetlands must be provided in a formal agreement between partners, permittee and the Blackfeet Tribe.

9. Specific site selection factors: The Mitigation Plan must include a full description of specific site selection factors of the proposed mitigation site including its hydrologic features, wildlife uses, biodiversity, or other factors that denote its ecological significance. A narrative must be provided that specifically describes how restoration activities can realistically achieve higher functional resource condition through improvement of water quality, hydrology, wildlife, fish and amphibian use, plant community condition and soil surface integrity. This must also include improvements to the condition of the adjacent natural landscape buffer, either by management or restoration activities.

10. Credit determination and requirements: Credits for mitigation will be issued following completion and evaluation of mitigation site condition. A site may take several years to

achieve its full functionality. A credit is a unit of measure (usually an acre or linear foot) representing the accrual or attainment of aquatic functions at a compensatory mitigation site. The measure of aquatic functions is based on the resources restored, established, enhanced, or preserved. A description of the number of credits to be provided should be included in the mitigation plan, including a brief explanation of the rationale for this determination.

11. Long-term management plan: A long term management plan must be developed for the mitigation site that includes a regular schedule for maintenance activities for a minimum period of 20 years. This is further detailed in the performance standards listed below. For sites selected for preservation purposes, any formal management agreements between the Tribe, land-trust and permittee must be provided.

12. Adaptive management plan: The mitigation plan must include an adaptive management plan that describes how funds, equipment, services and alternative actions will be provided if the mitigation site is not improving in overall wetland or water quality condition.

COMPENSATORY MITIGATION MONITORING REQUIREMENTS

1. Monitoring of any mitigation site on the Blackfeet Reservation is a condition of the permitted activity.

2. Annual monitoring of the mitigation site is required in order to track the recovery, establishment, preservation, and/or restored biological or ecological functional values of the mitigation site. Annual monitoring may be required for at least five to ten years and at five year intervals thereafter, depending on the aquatic resource type (see below). Monitoring schedules are different from the long-term management plan schedules described in Section 11 above.

3. Prairie potholes and other depressional wetlands and most riparian and floodplain corridors can be effectively monitored over a five to ten year period, whereas mountain elevation wet meadows, marshes, fens and forested wetlands, such as those occurring on the Blackfeet Reservation, may require a longer monitoring timeframe (i.e. >10 years), in order to:

    a) adequately determine restoration or recovery of ecological services and the performance standards of the aquatic resource; and
    b) monitor for the establishment of Tribal, State or Federally listed species that typically occur in these specific aquatic resource types.

4. After five years of monitoring the Blackfeet Tribe will evaluate whether the site has met performance standards and if the site has met performance standards it shall be released from annual monitoring requirements. If the Tribe determines that monitoring needs to continue past five years, the Tribe will evaluate at the end of each subsequent year whether the site needs continued monitoring. Monitoring may continue to be required at

five year intervals after annual monitoring is completed and monitoring every five years may be required up to year twenty.

5. Monitoring protocols used for mitigation sites on the Blackfeet Reservation must follow similar ecological assessment protocols developed or used by the Blackfeet Tribe, Montana Department of Transportation (MDT), and Montana Natural Heritage Program (MTNHP) and must follow recommendations made by the US Army Corps of Engineers (COE) and the Environmental Protection Agency (EPA).

6. It is a permit condition that the same aquatic resource ecological integrity assessment method (Tribal, MTNHP, MDT) be used for the impacted resource prior to disturbance to evaluate, compare and select potential mitigation sites. Compensatory mitigation sites should be or be capable of becoming a site with similar hydrological function, ecological condition and composition, wildlife and cultural resource values as the impacted site.

7. It is preferred that Blackfeet Reservation reference standard aquatic resources of the same type as the mitigation site and within the same watershed be used as comparison for evaluating mitigation site performance during the monitoring period. Additional reference sites to examine different successional stages will be useful in determining whether mitigation performance milestones are being met.

8. Additional documentation of impacts occurring to culturally significant species, Montana Species of Concern or Tribal Species of Concern at the impacted site and the documentation of culturally important species occurring at the mitigation site may be required by the Blackfeet Tribe and will be performed by Blackfeet Tribe personnel.

9. Compensatory mitigation site delineation and monitoring reports shall include accurate maps of total aquatic resource acreage and linear feet before and after mitigation activities in order to accurately determine aquatic resource mitigation credits for the project. If applicable, annual monitoring reports shall include maps delineating the boundaries of wetland and upland soils of the mitigation site and maps of wetland hydrologic boundaries.

PERFORMANCE STANDARDS FOR AQUATIC RESOURCE MITIGATION SITES

1. Performance Standards for Hydrology and Hydrologic Functions:

a) Performance standards for aquatic resource hydrology shall include delineating and mapping total acreage that is restored to natural periods of inundation or flooding following mitigation efforts and the total acreage of upland habitat that becomes part of the hydrologic zone following mitigation efforts.

b) Performance standards for hydrology at the mitigation site will include evaluating the following hydrologic functional assessment parameters:

1) Recovery of the natural hydroperiod, flooding or natural flow characteristic of the mitigation site;
2) Ground water connectivity and/or restored surface water flow into and out of the mitigation site;
3) Short or long term water storage and attenuation;
4) Enhanced or restored hydrology which provides shoreline, submerged, emergent or open water habitat for birds, amphibians, fish and other wildlife;
5) Open water habitat enhancement or increased flood water storage potential;
6) Improved water quality following mitigation activities.

2. Performance Standards for Native Vegetation

The Blackfeet Reservation has a wide range of aquatic resources occurring in two distinct eco-regions and precipitation zones (Northern Rocky Mountains and Foothills and Northwestern Great Plains). Generally, wetlands of all types in northern temperate areas recover at a slower rate than similar wetlands occurring at more southerly latitudes. Establishment of native aquatic resource plant cover will also vary depending on location and aquatic resource type. Reference standard potholes, depressions, saline depressions and alkali flats of the eastern third of the Reservation typically have less native plant diversity and total vegetation cover, while potholes, depressions and other wetland and riparian types of the western third of the Reservation and western edge of the Northwestern Great Plains region typically have more complex plant community composition and structure and higher total plant cover.

a) Performance standards for the mitigation site require the establishment of native wetland vegetation that is of similar composition and structure known for similar wetland or riparian areas on the Blackfeet Reservation.

b) Acceptable native wetland vegetation cover at the end of the monitoring period (five to ten years) shall be 50% for potholes, depressions, saline depressions and alkali flats occurring in the eastern third of the Reservation and 75% for all floodplain and riparian habitat of the Reservation and 75% for all wetlands occurring in the Northern Rocky Mountain and Foothill region and western third of the Northwestern Great Plains region of the Blackfeet Reservation.

3. Performance Standards for Non-Native Vegetation

Performance Standards for the compensatory mitigation site require the prevention and exclusion of all non-native species listed under Categories A, B, and C and less than 5% cover of noxious species listed under Category D. See Appendix A for Categories and lists of species in each Category.

4. Performance Standards for Soils

Hydric soils shall be delineated and mapped for the mitigation site. Upland soils that become flooded after restoration of hydrology or open water enhancement will not exhibit visible hydric features for several decades.

a) Performance standards for hydric soils shall include delineating acreage of hydric soils that become restored to natural periods of inundation or flooding following mitigation efforts and the total acreage of upland soils that become part of the hydrologic zone following mitigation efforts or wetland enhancement.

b) Performance standards for soils at the mitigation site will include evaluating the following functional assessment parameters:

1) Shoreline and sediment stabilization
2) Sediment, nutrient and toxicant removal
3) Shoreline habitat for birds, amphibians, fish and other wildlife
4) Short or long term water storage and attenuation
5) Streambank stabilization and adequate native plant cover to prevent erosion or soils removal during periods of flooding or high flow
6) Capacity to accumulate or stabilize organic matter or organic layers of wetland soils
7) Capacity to support and sustain native wetland vegetation
8) Recovery of stabilized wetland soil surface features that allow for natural periods of flooding or inundation and water flow across mitigation site
9) Recovery of soil surface structure (i.e. removal of vehicular two-tracks or heavy livestock use)
10) Production and food chain support

5. Performance Standards for Wildlife Values and Rare Wetland Plant Habitat

Blackfeet Reservation wetlands, lakes and riparian areas support a wide range of birds, mammals, amphibians and fish native to the Northern Rocky Mountains and Northwestern Great Plains that include federally listed Threatened Species and State and Tribal Species of Concern. Several Reservation wetlands contain Montana Rare Plant Species of Concern.

a) Performance Standards shall include descriptions of restored or enhanced wildlife habitat features (dominant wetland habitat types), and include landscape connectivity of the

mitigation site to major wildlife travel and migratory corridors for all federally listed Threatened species and State and Tribal Species of Concern.

b) Performance Standards for wildlife values shall include all wildlife, fish, bird and amphibian observations over the course of the wetland mitigation site monitoring period.

c) If the wetland mitigation site supports biologically rare wetland plant species (State or Tribal Species of Concern), the rare plant population(s) should be mapped and assessed before and after mitigation activities. Mitigation activities shall not destroy existing rare wetland plant habitat or populations.

6. Performance Standards for Cultural Values

Blackfeet Reservation wetlands support many wetland dependent culturally significant plant and animal species. Prior to European contact, the Blackfeet people were migratory hunter-gatherers who used many of the Reservation's plants and animals for sustenance. The Blackfeet also used many plants and animals for ceremonial and medicinal purposes. A short list of wetland dependent culturally significant plant and animal species includes beaver, peppermint, sweetgrass, willow, cattail, cottonwood, wild iris, camas, water birch, and red-osier dogwood. There are many more wetland dependent culturally significant species, with thirty-seven percent (37%) of culturally significant plants present in this area being either Obligate or Facultative Wetland species (Luna 2017). The Blackfeet Tribe has a document entitled "Wetland Plants of the Blackfeet Indian Reservation" (Luna 2017) which identifies all the wetland dependent culturally significant species that are found on the Reservation.

a) Performance Standards for Cultural Values shall include a list of observations of plant and animal species that are of cultural importance at the mitigation site over the course of the monitoring period. No mapping of the specific site locations of culturally important species shall be done in order to protect them from disturbance.

CONCLUSION

The Blackfeet Tribe highly values all of its unique and valuable aquatic resources and has demonstrated that through the development of a comprehensive management program for these resources in the Blackfeet Environmental Office. Streams, rivers, lakes, ponds, wetlands, riparian areas and impoundments are all protected under Ordinance 90-A. Tribal aquatic resources are also protected by the Tribe's Water Quality Standards. The Tribe uses both federal and tribal regulations to protect its aquatic resources. This Aquatic Resources Compensatory Mitigation Policy is another tool that the Tribe will use to protect its unique and pristine aquatic resources.

DEFINITIONS

Buffer: the upland area adjacent to a wetland and/or riparian area that protects and/or enhances aquatic resource functions associated with wetlands, rivers, streams, lakes, or springs from disturbances associated with adjacent land uses.

Compensatory mitigation: the restoration (re-establishment or rehabilitation), preservation, enhancement or establishment of aquatic resources for the purposes of offsetting unavoidable adverse impacts which remain after all appropriate and practicable avoidance and minimization has been achieved.

Compensatory mitigation project: the compensatory mitigation implemented by the permittee as a requirement of an Ordinance 90-A or 404 permit (i.e., permittee-responsible mitigation), or by a mitigation bank or an in-lieu fee program.

Condition: the relative ability of an aquatic resource to support and maintain a community of organisms having a species composition, diversity, and functional organization comparable to reference aquatic resources in the region.

Credit: the unit of measure (e.g., a functional or areal measure or other suitable metric) representing the accrual or attainment of aquatic functions at a compensatory mitigation site. The measure of aquatic functions is based on the resources restored, established, enhanced, or preserved.

Enhancement: the manipulation of the physical, chemical, or biological characteristics of an aquatic resource to heighten, intensify, or improve a specific aquatic resource function(s). Enhancement results in the gain of selected aquatic resource function(s), but may also lead to a decline in other aquatic resource function(s).

Establishment (creation): the manipulation of the physical, chemical, or biological characteristics present to develop an aquatic resource that did not previously exist at an upland site. Establishment results in a gain in aquatic resource area and functions.

Functional capacity: the degree to which an area of aquatic resource performs a specific function.

Functions: the physical, chemical, and biological processes that occur in ecosystems.

Impact: adverse effect.

In-lieu fee program: a program involving the restoration, establishment, enhancement and/or preservation of aquatic resources through funds paid to a governmental or non-profit natural resources management agency to satisfy compensatory mitigation requirements.

In-kind: a resource of a similar structural and functional type to the impacted resource.

Mitigation bank: a wetland, stream, or other aquatic resource area that has been preserved, restored, established or enhanced for the purpose of providing compensation for unavoidable impacts to aquatic resources permitted under Section 404 and Ordinance 90-A.

Off-site: an area that is neither located on the same parcel of land as the impact site, nor on a parcel of land contiguous to the parcel of land containing the impact site. Off-site may be in the same watershed as the impact site or in a different watershed.

On-site: an area located on the same parcel of land as the impact site or an area of land contiguous to the impacted site. On-site is located in the same watershed as the impact site.

Out-of-kind: a resource of a different structural and functional type from the impacted resource.

Performance standards: observable or measurable physical (including hydrological), chemical and/or biological attributes that are used to determine if a compensatory mitigation project meets its objectives.

Permittee-responsible mitigation: an aquatic resource restoration, establishment, enhancement, and/or preservation activity undertaken by the permittee (or an authorized agent or contractor) to provide compensatory mitigation for which the permittee retains full responsibility.

Preservation: the removal of a threat to, or preventing the decline of, aquatic resources by an action in or near those aquatic resources. This term includes activities commonly associated with the protection and maintenance of aquatic resources through the implementation of appropriate legal and physical mechanisms.

Re-establishment: the manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural/historic functions to a former aquatic resource. Re-establishment results in rebuilding a former aquatic resource and results in a gain in aquatic resource area and function.

Reference aquatic resources: a set of aquatic resources that represent the full range of variability exhibited by a regional class of aquatic resources as a result of natural processes and anthropogenic disturbances.

Rehabilitation: the manipulation of the physical, chemical, or biological characteristics of a site with the goal of repairing natural/historic functions to a degraded aquatic resource. Rehabilitation results in a gain in aquatic resource function, but does not result in a gain in aquatic resource area.

Restoration: the manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural/historic functions to a former or degraded aquatic resource. For the purpose of tracking net gains in aquatic resource area, restoration is divided into two categories: re-establishment and rehabilitation.

Riparian areas: lands adjacent to streams, rivers, lakes, and shorelines. Riparian areas provide a variety of ecological functions and services and help improve or maintain local water quality.

Sponsor: any public or private entity responsible for establishing, and in most circumstances, operating a mitigation bank or in-lieu fee program.

Temporal loss: the time lag between the loss of aquatic resource functions caused by the permitted impacts and the replacement of aquatic resource functions at the compensatory mitigation site. Higher compensation ratios may be required to compensate for temporal loss. When the compensatory mitigation project is initiated prior to, or concurrent with, the permitted impacts, it may be determined that compensation for temporal loss is not necessary, unless the resource has a long development time.

Watershed: a land area that drains to a common waterway, such as a stream, lake or wetland.

Watershed approach: an analytical process for making compensatory mitigation decisions that support the sustainability or improvement of aquatic resources in a watershed. It involves consideration of watershed needs, and how wetland locations and hydrologic connections contribute to the watershed.

APPENDIX A – PERFORMANCE STANDARDS FOR NON-NATIVE VEGETATION

Performance Standards for the compensatory mitigation site require the prevention and exclusion of all non-native species listed under Categories A, B, and C and less than 5% cover of noxious species listed under Category D.

Category A) Exclusion of State Listed Noxious Aquatic Species that are not yet found on the Blackfeet Reservation (Montana (MT) Priority 1)

Several high priority aquatic invasive species have been recently detected in nearby counties adjoining the Blackfeet Reservation and west of Glacier National Park. The mitigation site must be managed to prevent and exclude the establishment of the following High Priority Aquatic Invasive Species:

1) Zebra mussel (*Dreissena polymorpha*) (primarily lakes but other deep water habitats such as reservoirs, streams and rivers may be vulnerable)
2) New Zealand snail (*Podomopyrgus antipodarum*)
3) Curlyleaf pondweed (*Potamogeton crispus*)
4) Eurasian water milfoil (*Myriophyllum spicatum*)
5) Flowering Rush (*Butomus umbellatus*)
6) Common reed (*Phragmites australis v. australis*)

Category B) Exclusion of Noxious Weed Species of limited presence in Montana that are not yet found on the Blackfeet Reservation Priority (MT Noxious Weeds Priority 1A, 1B, 2A)

Many State Priority Noxious Weed Species invade wetland, riparian and floodplain habitats. The following noxious weeds have not been found but occur in limited amounts or in nearby areas of north-central, eastern and western Montana. Exclusion of the following noxious species is required within the Blackfeet Reservation. The wetland mitigation site must prevent and exclude establishment of all the following noxious weed and regulated introduced aquatic species:

1) Saltcedar (*Tamarix chinensis, Tamarix parviflora, Tamarix ramosissima* and hybrid derivatives)
2) Purple loosestrife (*Lythrum salicaria*)
3) Yellow flag Iris (*Iris versicolor*)
4) Knotweed complex (*Polygonum cuspidatum, P. sachalinense, P. × bohemicum, Fallopia japonica, F. sachalinensis, F. × bohemica, Reynoutria japonica, R. sachalinensis, and R.× bohemica*)
5) Scotch broom (*Cytisus scoparius*)
6) Perennial pepperweed (*Lepidium latifolium*)
7) Hoary alyssum (*Berteroa incana*)
8) Yellow starthistle (*Centaurea solstitialis*)
9) Dyer's woad *(Isatis tinctoria*)
10) Blueweed (*Echium vulgare*)
11) Rush skeletonweed (*Chondrilla juncea*)
12) Cheatgrass (*Bromus tectorum*)
13) Diffuse knapweed (*Centaurea diffusa*)

14) Hydrilla (*Hydrilla verticillata*)
14) Brazilian waterweed (*Egeria densa*)
15) Parrot feather watermilfoil (*Myriophyllum aquaticum* or *M. brasilense*)

Category C) Exclusion of other Noxious Wetland Weed Species (MT State Listed Priority 1A and 1B, Listed as Priority Noxious-other states, Montana State Regulated Introduced Species)

Several Montana State listed noxious and regulated weed species occur in limited amounts in Blackfeet Reservation wetlands, lakeshore habitat, riparian areas and adjacent uplands. The mitigation site must exclude all of the following State listed or regulated noxious weed species; or those listed as noxious in nearby states; or those that exhibit high potential to become invasive in some or all wetlands of the Blackfeet Reservation:

1) Russian Olive (*Elaeagnus angustifolia*)
2) Yellow hawkweed complex (*Hieracium caespitosum, H. praealturm, H. floridundum, and Pilosella caespitosa*)
3) Orange Hawkweed (*Hieracium aurantiacum, Pilosella aurantiaca*)
4) European poison hemlock (*Conium maculatum*)
5) Tall buttercup (*Ranuculus acris*)
6) Ox-eye daisy (*Leucanthemum vulgare*)
7) Dalmatian toadflax (*Linaria dalmatica*)
8) St. Johnswort (*Hypericum perforatum*)
9) Sulfur cinquefoil (*Potentilla recta*)
10) Common tansy (*Tanacetum vulgare*)
11) Houndstongue (*Cynoglossum officinale*)
12) Yellow toadflax (*Linaria vulgaris*)
13) Leafy spurge (*Euphorbia esula*)
14) Whitetop (*Cardaria draba, Lepidium draba*)
15) Black henbane (*Hyoscyamus niger*)
16) Creeping meadow foxtail *(Alopecurus arundinaceus*)
17) Field bindweed (*Convolvulus arvensis*)
18) Russian knapweed (*Acroptilon repens, Rhaponticum repens*)

Category D) Other State listed Noxious Weed Species (MT State Priority 2B) with established populations on the Blackfeet Reservation

The Blackfeet Reservation has established populations of several noxious weed species that can occur within wetlands and riparian areas or in adjacent upland habitat.
Performance standards for Category (D) Noxious Weeds (State Priority 2B) shall be less than 5% total cover of vegetation in the wetland mitigation site of the following:

1) Canada thistle (*Cirsium arvense*)
2) Spotted knapweed (*Centaurea stoebe, C. maculosa*)

If noxious weeds are found on a mitigation site, the permittee is responsible for noxious weed control and must consult with the Blackfeet Environmental Office on what control methods the Tribe will allow.

REFERENCES

Blackfeet Tribe Aquatic Lands Protection Ordinance No. 90-A, 2002. http://www.blackfeetenvironmental.com/ordinance90/blackfeet_aquatic_lands_protection_ordinance90a.pdf (November 11, 2017)

Clean Water Rule: Definition of "Waters of the United States"; Final Rule, 80 Fed. Reg. 37054 (June 29, 2015) (to be codified at 33 C.F.R. Part 328 and 40 C.F.R. Parts 110, 112, 116, *et al.)*

Compensatory Mitigation for Losses of Aquatic Resources; Final Rule, 72 Fed. Reg. 19594 (Apr. 10, 2008) (to be codified at 33 C.F.R. Parts 325 and 332 and 40 C.F.R. Part 230).

Luna, T., 2017, *Wetland Plants of the Blackfeet Indian Reservation.*

Montana Natural Heritage Program Wetland Ecological Systems, 2017 http://fieldguide.mt.gov/displayES.aspx?id=8 (November 11, 2017)

Water Pollution Prevention and Control Act of 1972, 33 USC §§1251-1388

Wetland Compensatory Mitigation Ratios, Montana Regulatory Program, April 2005, http://www.nwo.usace.army.mil/Portals/23/docs/regulatory/MT/Mitigation/mitigation%20ratios%20april%202005.pdf?ver=2013-03-29-155530-137 (November 11, 2017)