

5.0 MITIGATION MEASURES

5.1 INTRODUCTION

The Council on Environmental Quality NEPA Regulations requires the development of mitigation measures for all of the proposal's effects on the environment where it is feasible to do so (CEQ 46 Fed. Reg. 18026, 19a; 40 CFR Sections 1502.14(f) and 1502.16(h)). The NEPA Regulations define mitigation as "avoiding the impact altogether by not taking a certain action or parts of an action, minimizing impacts by limiting the degree or magnitude of the action and its implementation, reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action, compensating for the impact by replacing or providing substitute resources or environments" (40 CFR Section 1508.20). These principles have been applied to guide design and siting criteria for the alternatives. Where potential effects on the environment were identified in early stages of project design and EIS preparation, appropriate changes in the project description were made to minimize or eliminate them. In addition to the mitigation measures that have been incorporated into the design of the alternatives, the following section provides measures to mitigate specific effects identified in the preparation of the EIS. Mitigation measures have been identified where feasible to address specific effects regardless of whether they are considered "significant." **Table 1.4.1** identifies permits and approvals which may also be referenced as part of mitigation processes.

5.2 LAND RESOURCES

Direct impacts for the proposed preferred alternative and Alternatives B and C include land clearing/grading of more than 1 acre of land. 327 IAC 15-5 also known as Rule 5 (the National Pollutant Discharge Elimination System General Permit) is administered by the Indiana Department of Environmental Management and is required for all land disturbing activities greater than 1 acre. This rule requires an erosion control plan which will strive to follow the 10 general principles outlined by IDEM for an erosion and sediment control plan: fit the project to the existing terrain and soil, develop the erosion and sediment control plan before land-disturbing activities begin, retain existing vegetation on the construction site wherever possible, minimize the extent and duration that bare soil is exposed to erosion by wind and water, keep sediment confined to the construction site as much as possible, if possible, divert off-site runoff away from disturbed areas, minimize the length and steepness of slopes, stabilize disturbed areas as soon as possible, keep velocity of runoff leaving the site low and inspect and maintain erosion control measures regularly.

The erosion and sediment control (ESC) plan will show the placement and location of erosion and sediment control features necessary during construction to prevent erosion and sediment runoff and storm water pollution. The ESC plan will include construction details, compliance standards, procedural and regulatory compliance requirements as well as implementation timeframes. Historically, the Band has embraced BMPs, and intends to continue to do so, as feasible. Such

practices include: minimizing the width of temporary access roads for construction, using easily-removed materials for construction of temporary access roads, using alternative matting to distribute weight of construction equipment, using long reach excavators to avoid traversing or staging in streams or wetlands, and placing mats under construction equipment to contain spills or leaks. Additionally, typical ESC measures include: installing non-sediment producing, dikes, cofferdams, or other barriers to separate work areas and prevent sediment from entering lakes, wetlands and actively flowing streams; maintaining the barriers during construction; removing them post-construction and restoring staging areas through re-establishment of vegetation using native species as quickly as possible after construction to minimize erosion. Mitigation for indirect and induced growth development would reasonably be expected to include and be in compliance with existing management practices and applicable tribal, local, state, and federal laws and requirements relating to land clearing and site development. It is reasonable to expect that existing practices and requirements would be imposed upon and implemented by new developments because such practices and requirements are typically mandated as a condition of site development permits and approvals. Similar to the indirect and induced growth impacts, mitigation measures for cumulative impacts would reasonably be expected to include and be in compliance with existing management practices and tribal, local, state and federal laws and requirements, as previously described.

5.3 WATER RESOURCES

5.3.1 Surface Water

For all the alternatives that include a proposed action, surface water quality would be protected during construction using Best Management Practices as described in the sediment and control plan text. Construction activities on the project site are regulated by EPA's NPDES storm water program and require coverage under EPA's NPDES Phase II General Permit for Storm Water Discharges from Construction Activities or EPA's NPDES Municipal Separate Storm Sewer System. The required Storm Water Pollution Prevention Plan would be kept on-site during construction and would be available for review by the EPA upon request. The plan would incorporate temporary BMP's, including those listed in the Indiana Storm Water Quality Manual Planning and Specification Guide for Effective Erosion and Sediment Control and Post-Construction Water Quality. It would also include an inspection and monitoring section consistent with the requirements of the NPDES program. Implementation of the SWPPP would ensure that pollutants in storm water runoff from the construction site would be limited to the maximum extent practicable.

The following BMP's could be incorporated into the SWPPP: silt fences, vegetated swales, inlet protection, temporary seeding, erosion control blankets, energy dissipaters, sediment traps, dust control procedures and crushed aggregate construction entrances and exits.

The EPA recommends that green infrastructure practices for stormwater and wastewater management be incorporated as much as possible. Examples of these practices include; retaining trees and other vegetation during construction, and using practices that reduce stormwater discharge volumes and protect water bodies from pollutants carried by urban stormwater, such as rain gardens and permeable pavers (which can enhance groundwater recharge). The Band has utilized green infrastructure practices at other construction projects in the past and would voluntarily implement, as feasible, similar methods during design and construction of Alternatives A, B, or C.

Post construction measures could include the implementation of vegetated swales throughout the site for storm water conveyance and water quality purposes to direct flows into detention basins. Wet detention basins, including retention ponds and wet extended detention ponds, allow contaminated sediments to settle and remain in the pond while providing flood storage for peak flow attenuation. Additionally, areas which are considered sensitive (including high quality receiving waters and waters currently impaired) may be given additional treatment measures.

To verify control measures and appropriate reduction of contaminants in surface water runoff, the EPA's NPDES permit program requires surface water quality monitoring on a regular basis. The site-specific surface water quality program will identify the water quality objectives, source reduction measures, record keeping protocol and an annual review of the surface water quality program to identify any necessary changes or additions to the program to ensure the surface water quality objectives are met.

5.3.2 Groundwater

The final SWPPP would include a detailed groundwater contamination prevention processes and mitigation.

5.4 AIR QUALITY

Fugitive dust PM₁₀ emissions from exposed soil disturbed by construction activities could be effectively controlled by the application of water. The effectiveness of this measure is dependent on the maintenance of adequate soil moisture content, which is dependent on the frequency of watering. The sites would be watered according to permit conditions to minimize construction-related PM₁₀.

For Alternatives A, B and C possible mitigation measures that could be implemented to reduce potential impacts during construction may include:

- Use of equipment and trucks that are maintained in good operational condition
- Retrofitting of off-road equipment with emission reduction equipment

- Implementation of restrictions on construction truck idling; e.g., limiting idling to a maximum of 5 minutes
- Spraying exposed soil with water or other suppressant to reduce emissions of dust and deposition of particulate matter
- Pavement or use of gravel on staging areas and roads that would be exposed for long periods
- Covering trucks transporting materials, wetting materials in trucks, or providing adequate freeboard (space from the top of the material to the top of the truck bed) to reduce particulate matter emissions and deposition during transport
- Providing wheel washers to remove particulate matter that would otherwise be carried off-site by vehicles to decrease deposition of particulate matter on area roadways

For Alternatives A, B and C possible mitigation measures that could be implemented to reduce emissions from the combustion of fuel during operation of the proposed alternative may include:

- Using solar or low-emission water heaters or central water heating
- Increasing the thickness of insulation used for walls and attic spaces
- Where possible, utilizing electric powered cooking appliances, comfort systems, and landscaping equipment
- Implementing restrictions on bus or recreational vehicle idling; e.g., limiting idling to a maximum of 5 minutes

The Band is committed to reducing exposure to diesel exhaust during construction and operation of the facilities proposed in Alternatives A, B, and C and would strive to implement measures to effectively limit pollution and impacts to human health. The EPA gives the following recommendations:

- using low-sulfur diesel fuel (less than 0.5% sulfur)
- positioning the exhaust pipe so that the diesel fumes are directed away from the operator and nearby workers, thereby reducing the fume concentration to which personnel are exposed
- using catalytic converters to reduce carbon monoxide, aldehydes and hydrocarbons in diesel fumes
- ventilating wherever diesel equipment operates indoors, including using roof vents, open doors and windows, roof fans or other mechanical systems help move fresh air through work areas
- attaching a hose to the tailpipe of diesel vehicles running indoors and exhaust the fumes outside, where they cannot reenter the workplace
- using climate controlled cabs pressurized and equipped with high efficiency particulate air filters to reduce operators' exposure to diesel fumes
- regularly maintaining diesel engines
- purchasing new vehicles that are equipped with the most advanced emissions control systems available

- with older vehicles, using electric starting aids such as block heaters to warm the engine reduces diesel emissions
- using respirators, which are only an interim measure to control exposure to diesel emissions

5.5 BIOLOGICAL RESOURCES

5.5.1 Wildlife and habitats

For all the alternatives, with the exception of Alternative D, mitigation for impacts to habitat could include activities during and post construction. During construction, vegetation clearing could occur outside the Spring/Summer nesting and fledging period to protect migratory bird species as required by the Migratory Bird Treaty Act. If vegetation removal activities were to be conducted during the nesting season, a pre-construction survey for active migratory bird nests within proposed disturbance areas could be conducted by a qualified wildlife specialist within two weeks to a month prior to vegetation removal. If vegetation removal activities were delayed or suspended for more than a month after the preconstruction survey, the site could be resurveyed. If active migratory bird nests were identified, vegetation removal that would disturb these nests would be postponed until after the nesting season, or a qualified wildlife specialist could determine if the young have fledged and were independent of the nest site. No active nest of a migratory bird protected by federal law would be disturbed without a permit or other authorization from the USFWS. Construction activities would be limited outside daylight hours to minimize impacts to wildlife from noise and direct collision. The BMPs agreed upon in the SWPPP as described above, would serve the secondary purpose of limiting the amount of sediment entering into the remnant forest systems.

Post construction measures could be put into place to protect surrounding wildlife utilizing the surrounding remaining habitat. Driving speeds within the project area could be limited to 20 mph or less to avoid potential road kill of onsite wildlife. Subject to public safety requirements, lighting from the front of the casino could be directionally pointed away from the remaining habitats where feasible and lighting for the back of the casino could consist of low wattage security and safety lighting near doorways to minimize effects from onsite lighting. For Alternative C, lighting from the commercial development could also be positioned to minimize the impact on the remaining habitats.

5.5.2 Federally Listed Species

Consultation with the USFWS resulted in a determination of not likely to adversely affect endangered, threatened or candidate species. On the South Bend site, Indiana bats and Northern long-eared bats were the only listed species with potential habitat occurring onsite. Potential Indiana bat trees were identified onsite, primarily located in the more mature wooded area along US 31. Potential roosting trees would be avoided when possible; those that could not be avoided would be flagged/marked so that the construction company would only remove those necessary to

proceed with construction as designed. If potential roosting trees need to be removed, they would not be removed during the summer season (May 15 to August 15) to avoid potentially affecting a roosting bat. As the main threat to the Northern long-eared bats' existence is white nose syndrome, and not habitat loss, the most vulnerable life stages of the northern long-eared bat (i.e., while in hibernacula or in maternity roost trees) are used to evaluate impacts to the species. As there are no known northern long-eared bat occurrences documented near the South Bend site (Indiana DNR 2016), no impacts to the northern long-eared bat are expected. Concurrence with this no effect determination was received on February 19, 2016 (USFWS 2016b) (see **Appendix D**). Due to the very limited amount of habitat on the Elkhart site, no direct impacts to federally listed species would be expected.

5.5.3 Vegetation

Vegetation impacts post construction on the South Bend site include the creation of edge habitat and changes to the site hydrology, both of which can result in a shift in community structure and species composition. These factors are not a concern on the Elkhart property because there will not be remaining habitat fragments. On both sites, the introduction of nuisance/exotic species is a concern both during construction and in the operational phase. Mitigation for indirect impacts to the remaining habitats could be accomplished through enhancement activities when possible within those systems including: selective thinning, enhanced species biodiversity and the introduction of controlled fires. Cutting and removal of vegetation by site users or residents could occur to prevent personal or property damage or to facilitate personal interest in physical access, visual access or aesthetics. Unnecessary cutting of vegetation can be addressed through educational communication, the establishment of conservation easements or restrictive covenants, signs and/or fences to minimize this indirect effect. Users and residents could also become stewards of the site to manage remaining habitats, to treat invasive species, and enhance biological diversity.

On both the South Bend and Elkhart site, nuisance and exotic species introduction during construction could be minimized by establishing a vehicle wash to remove soil potentially containing invasive species from construction equipment and replanting of disturbed ground to establish non-invasive vegetative cover. Within the developed portion of the sites for both the casino and tribal village, all landscaping would consist of native or non-invasive species. During the operation phase, exotic and nuisance species would be regularly and actively controlled through direct removal or herbicide application.

5.5.4 Wetlands

Potential direct and indirect wetland impacts would be limited to the South Bend site. Therefore, mitigation discussions are limited to this site. Wetland impacts are both direct and indirect and could occur both during the construction and operation phase of the project. Direct impacts to wetlands would be regulated by the USACE. A permit would be acquired from the USACE prior to

construction which would specify permitted impacts to wetlands and required mitigation measures. In these situations, the USACE and IDEM typically use the same mitigation standards which include ratios of 2.0 to 1 for emergent wetlands and 4.0 to 1 for forested wetlands, both on and offsite. Compensatory wetland mitigation for riverine wetland is typically provided through the relocation or restoration of stream channels at a minimum ratio of one foot of relocated or restored stream channel for each foot of impact. At this time, there are no wetland mitigation banks in the Kankakee River watershed or the St. Joseph River watershed with appropriate habitat credits. The USACE would prefer to see suitable lands within the watershed used for wetland mitigation and that mitigation take place in the same wetland/habitat type as those impacted.

Construction impacts could be limited through the implementation of the storm water BMPs discussed in section 5.3. The proper implementation of BMPs could limit the amount of storm water and associated sediment and pollutants from entering wetlands. Temporary fencing would be installed around wetland or drainage areas prior to construction and would remain in place until all construction activities on site have been completed. Fencing would be checked frequently and maintained as necessary. Construction staging areas would, to the extent feasible, be located away from the wetlands and drainage areas. Temporary stockpiling of excavated or imported material would occur only in approved construction staging areas. Excess excavated soil would be used on site or disposed of at an approved regional landfill or other appropriate facility. Stockpiles that remain onsite for an extended period would be protected to prevent erosion.

During the operation, appropriate demarcation or informative signs could be installed near remaining wetland systems located close to the proposed development to keep maintenance crews from mowing within the wetland.

5.6 CULTURAL RESOURCES

At this time, no archeological sites are affected and no non-archeological historic-age resources are adversely affected by the Alternatives and therefore, no mitigation is necessary as a result of the Alternatives. However, if future development occurs in the immediate vicinity of BIA Structure 10 (Atkins Resource 04A) on the South Bend alternative site or if alterations to the exterior of BIA Structure 10 (Atkins Resource 04A) occur, these actions may indirectly and/or directly adversely affect BIA Structure 10 (Atkins Resource 04A) and compliance with Sections 106 and possibly 110 of the NHPA may be required including mitigation.

Should any archaeological artifacts, including human remains or other cultural resources be encountered during project construction, work should cease immediately in the vicinity of the resource, the discovery reported to the BIA and the THPO and action taken as directed.

The preferred form of mitigation for effects on cultural resources is avoidance. Where avoidance is not possible, effects can be mitigated in consultation with appropriate entities. An alternative form of mitigation of direct effects can be developed for archaeological and historical sites with the

implementation of a program of detailed data retrieval. Indirect effects on historic properties and landscapes can be lessened through careful design and landscaping considerations. Additionally, relocation may be possible for some historic structures.

5.7 SOCIOECONOMIC CONDITIONS

Mitigation measures for Alternatives A and B include the following, consistent with current Band law, regulations, and practices:

- The Band has existing law and policy for dealing with problem gambling.
- The Band administers training programs to assist management and staff to in recognizing and addressing customers whose gambling behavior may strongly suggest they may be experiencing serious to severe difficulties.
- The Band will refuse service to any customer whose gambling behavior convincingly exhibits indications of problem or pathological gambling.
- The Band will assist customers in need of access to gambling treatment professionals and programs and self-help groups.
- The Band has existing regulations and policies that allow for voluntary self-exclusion, which enables gamblers to ban themselves from a gambling establishment for a specified period of time and the Band's Gaming Commission may initiate an involuntary exclusion procedure regarding patrons whose behavior meets regulatory requirements.

5.8 RESOURCE USE PATTERNS

5.8.1 Transportation

Alternative A Mitigation Measures

The following roadway improvements would offset the potentially significant impacts noted above. These measures would be evaluated in more detail by the Band, INDOT, and the St Joseph County Engineer's Office prior to project development. Potential improvements that may be implemented for the "Opening Year" (estimated for purposes of transportation mitigation in this subsection 5.2.7.1 as 2020) or in subsequent phases of project development consist of:

- US 31/20 Westbound Ramps
 - Install a traffic signal with protected phase for northbound left turn (intersection expected to meet INDOT signal warrants under 2020 no build traffic volumes - see Appendix F).
 - Construct westbound right turn only lane, reassign lanes on westbound approach to left/right turn lane and right turn only.
- US 31/20 Eastbound Ramps
 - Install traffic signal with protected phase for southbound left turn (intersection expected to meet INDOT signal warrants under 2020 build conditions - see Appendix F).

- Construct eastbound left turn only lane, reassign lanes on eastbound approach to left turn only and left/right turn lane.
- SR-23 between US 31/20 Westbound Ramps and New Energy Drive
 - Provide two lanes for each direction of travel.
- New Energy Drive at SR-23
 - For northbound drive approach, provide two left turn lanes, one through lane, and one right turn lane.
 - Add left turn lane to westbound approach.
 - Add left turn lane to southbound approach.
 - Drop second eastbound through lane as a right turn only lane into site driveway.
 - Install actuated signal with protected left turn phases for eastbound, westbound, and southbound approaches and protected right turn phases for eastbound and northbound approaches (intersection expected to meet INDOT signal warrants under 2020 build conditions – see Appendix F).
- Locust Road at SR-23
 - Add protected southbound left turn phase.
- Ewing Avenue at SR-23
 - Install traffic signal (intersection expected to meet INDOT signal warrants under 2020 no build conditions - see Appendix F).

No further improvements would be necessary to mitigate the 2035 traffic impacts. Auxiliary turn lanes do not appear to be warranted under the 2020 or 2035 conditions at Driveway B and Driveway C (see Appendix F); however the Band may, subject to the approval of INDOT, wish to install these lanes for the added safety benefit. As shown in Table 4.8-4, if the potential roadway improvements (i.e., mitigation measures) mentioned above are implemented, all the analyzed intersections and all previously unacceptable intersection lane groups are expected to operate at LOS D or better during both the Opening Year (2020) and the Horizon Year (2035). Table 4.8-4 summarizes the anticipated LOS at the intersections with improvements, and Figure 4.8-4 shows the potential mitigation by intersection.

Alternative A Construction Impacts

It should be noted that construction of potential mitigation measures may introduce temporary or short term impacts to motorists, possibly including additional delay not quantified by this study. These temporary construction impacts are not considered to be significant.

Alternative B Mitigation Measures

The following roadway improvements will be considered to offset the potentially significant impacts noted above. These measures will be evaluated in more detail by the Band, INDOT, and the Elkhart County Engineer's Office prior to project development. Potential improvements that may be implemented for the Opening Year (2020) or in subsequent phases of project development consist of:

- County Road 28 at SR-19
 - Install traffic signal (intersection expected to meet INDOT signal warrants under 2020 build conditions – see Appendix F).
- SR-19 at Proposed Driveway A (Main Casino Driveway)
 - Install traffic signal (intersection is expected to meet INDOT signal warrants under 2020 build conditions - see Appendix F).
 - Inside southbound through lane becomes a left turn only lane.
 - Provide two northbound through lanes and add one right turn only lane.
 - Provide two westbound right turn lanes and one left turn lane.

The following additional roadway improvements will be considered to offset the potentially significant impacts under the Horizon Year (2035) scenario. These measures will be evaluated in more detail by the Band, INDOT, and the St Joseph County Engineer's Office prior to project development. Potential improvements that may be implemented for the Horizon Year (2035) consist of:

- US 20 Westbound Ramps
 - Remove the off ramp splitter island; provide two left-turn only lanes and two right-turn only lanes.

Auxiliary turn lanes do not appear to be warranted under the 2020 or 2035 conditions at Driveway B (see Appendix F); however the Band may wish to install these lanes for the added safety benefit. As shown in Table 4.8-6, if the potential roadway improvements (i.e., mitigation measures) mentioned above are implemented, all the analyzed intersections and all previously unacceptable intersection lane groups are expected to operate at LOS D or better during both the Opening Year (2020) and the Horizon Year (2035). Table 4.8-6 summarizes the anticipated LOS at the intersections with improvements, and Figure 4.8-8 shows the potential mitigation by intersection.

Alternative B Construction Impacts

It should be noted that construction of potential mitigation measures may introduce temporary or short term impacts to motorists, possibly including additional delay not quantified by this study. These temporary construction impacts are not considered to be significant.

Alternative C Potential Mitigation Measures

The following roadway improvements will be considered to offset the potentially significant impacts noted above. These measures will be evaluated in more detail by the Band, INDOT, and the St Joseph County Engineer's Office prior to project development. Potential improvements that may be implemented for the Opening Year (2020) or in subsequent phases of project development consist of:

- US 31/20 Eastbound Ramps
 - Install traffic signal (intersection expected meet INDOT signal warrants under 2020 no build conditions - see Appendix F).
- US 31/20 Westbound Ramps
 - Install traffic signal (intersection expected meet INDOT signal warrants under 2020 no build conditions - see Appendix F).
- SR-23 & Driveway B
 - Install traffic signal (intersection expected meet INDOT signal warrants under 2020 build conditions - see Appendix F).
 - Add northbound right turn lane
 - Add southbound left turn lane
 - Add westbound left turn lane.
- New Energy Drive at SR-23
 - Install traffic signal (intersection expected meet INDOT signal warrants under 2020 build conditions – see Appendix F).
 - For northbound drive approach, provide one left turn lane and one shared through/right turn lane.
 - Add left turn lane to westbound approach.
 - Add left turn lane to southbound approach.
 - Add right turn lane to eastbound approach.
- Ewing Avenue at SR-23
 - Install traffic signal (intersection expected to meet INDOT signal warrants under 2020 no build conditions - see Appendix F).

No further improvements would be necessary to mitigate the 2035 traffic impacts.

Auxiliary turn lanes do not appear to be warranted under the 2020 or 2035 conditions at Driveway C and Driveway D (see Appendix F); however the Band may wish to install these lanes for the added safety benefit. As shown in Table 4.8-9, if the potential roadway improvements (i.e., mitigation measures) mentioned above are implemented, all the analyzed intersections and all previously

unacceptable intersections and lane groups are expected to operate at LOS D or better during both the Opening Year (2020) and the Horizon Year (2035). Table 4.8-9 summarizes the anticipated LOS at the intersections with improvements, and Figure 4.8-12 shows the potential mitigation by intersection.

Alternative C Construction Impacts

It should be noted that construction of potential mitigation measures may introduce temporary or short term impacts to motorists, possibly including additional delay not quantified by this study. These temporary construction impacts are not considered to be significant.

5.9 PUBLIC SERVICES

5.9.1 Water Supply and Wastewater Service

Effective water management techniques can reduce water consumption and significantly reduce costs associated with water supply and wastewater discharge. Based on the preliminary analysis conducted by Wightman and Associates and discussed in Section 4.9, to mitigate for inadequate capacities and to increase efficiencies, specific upgrades are required for each alternative at the points of hook up with the City of South Bend wastewater and water supply mains. The use of the City of South Bend systems by the Project will require gravity sewer, a lift station, and forced main for wastewater; and a new on-site water main for water delivery, but a booster station will not be required.

The lift station for wastewater will be powered by the onsite facility with a generator powered by diesel or other petroleum-based fuel for backup. As with any petroleum products stored on-site, diesel fuel will be retained in areas with secondary containment or kept in secured areas with impermeable floors and a Spill Prevention, Control, and Countermeasures Plan (SPCC) will be completed and administered by the EPA. Wastewater forced mains installed will feature 6-inch PVC meeting the requirement of ASTM D2241 with a SDR of 21, rated at a working pressure of 200 PSI with reduced wall compact ductile iron fittings. New water mains for water delivery by City of South Bend systems will be ductile iron pipe with polyethylene encasement per ASTM A674 and AWWA C105.

Some additional water management techniques used by the EPA that may in some instances be applied to the proposed developments include:

- Metering, measuring and managing water processes to identify inefficiencies
- Upgrading sanitary fixtures (waterless urinals, low-flow toilets, faucet flow controls)
- Eliminating single-pass cooling systems which uses a continuous flow of water circulated once through a system for cooling purposes and then disposed of

- Using recycled water and closed loop systems to cool air-conditioning equipment can reduce water consumption and reduce costs
- Incorporating xeriscaping techniques which is a type of landscaping that conserves water by planting native, water-efficient plants utilizing techniques that minimize the need for irrigation
- Recovering rooftop rainwater and redirecting it to storage tanks for various purposes throughout the facilities

The U.S. Green Building Council's Leadership in Energy and Environmental Design is a point-based system that awards points for new construction meeting specific requirements in terms of water usage. Should the Band choose to pursue LEED certification for the proposed alternative, there are three credit areas allocated to water efficiency:

- Credit 1 - Water-efficient landscaping
- Credit 2 - Innovative wastewater technologies
- Credit 3 - Water Use Reduction.

Some strategies within the three credit areas could be easily incorporated into the proposed design during any phase of the project; however, other strategies could require long-term planning and the integration of multiple disciplines.

5.9.2 Solid Waste

Effective mitigation techniques to reduce solid waste during the operation of the facility could include an extensive recycling program and incorporating composting techniques. During construction, there could be opportunities to hire local contractors to salvage waste building materials to reduce waste quantities and save on disposal fees.

5.9.3 Public Utilities (Electricity, Natural Gas and Telecommunications)

With each public utility, mitigation measures could be designed, installed or added as feasible to provide redundancy to the system thus avoiding disruption in utility services. As with any development, disruptions to services could occur from storms, non-related construction accidentally cutting or disrupting lines or system failures. Utility mitigation options would likely include backup electrical generators and looped systems. For telecommunications systems, if feasible, both copper wire and fiber optics cable could be installed so systems could be configured to run on either cable should one fail or need upgrades.

5.9.4 Electricity and Natural Gas

For Alternatives A and B there could be opportunities to reduce electrical demands by increasing the natural gas usage for powering the facility, which could increase efficiency and reduce electricity costs, while also providing greener power opportunities.

There could also be opportunities to introduce the LEED certification process and green building concepts to the utilities development. LEED certified buildings have been shown to cost less to operate by reducing energy and water bills. Green building concepts include optimizing four main areas in design: materials, energy, water, and health. Specifically, some green energy elements that could be introduced into the proposed design include:

- Passive solar design which involves high levels of insulation, energy-efficient windows, the use of natural daylight to reduce lighting needs, energy-efficient lighting, and low energy appliances
- Use of waste heat from other processes for temperature control
- Incorporation of thermal masses to absorb, store and distribute heat
- Southern facing glass windows

The actual mechanical, electrical, material design components and energy demand needs would be calculated for the final alternative during the design process and green building decisions and increased usage of natural gas and/or renewable energy options would be reviewed at that time.

To mitigate against telecommunication disruptions and outages, fiber optics cable could be installed and the circuits could be configured so they could ride on either the copper or the fiber optics cable. This system has been successful at the Four Winds New Buffalo Casino at mitigating against unforeseen communication outages.

5.9.5 Public Health

Law Enforcement

Law enforcement measures for Alternatives A, B and C could include;

- The Band would provide on-site security for casino operations to reduce and prevent criminal and civil incidents.
- The Band will require alcoholic beverage servers to undergo training to ensure responsible service, sale, and consumption of alcohol and to prevent intoxication, underage drinking, and drunk driving.
- All security guards would routinely carry two-way radios so as to respond to back up and emergency related calls. This would aid in the prevention of auto theft and other related criminal activity.

- Subject to requirements for the protection of wildlife, all parking areas would be well lit and monitored by parking staff, and/or roving security guards at all times during operation. This will aid in the prevention of auto theft and other criminal activities.
- Subject to requirements for the protection of wildlife, areas surrounding the gaming facilities would be well lit and monitored by surveillance cameras and/or patrolled regularly by roving security guards. This would aid in the prevention of off-site parking, which could create possible security issues.
- At the County Sheriff's request or on the Band's own initiative, the Band would consider providing a location on or near the site for a law enforcement substation, subject to the commitments agreed upon in Resolution R-12-C-2014 which approves cross-deputization between the Band and the County Sheriff's Department.
- In November of 2014, in preparation for jurisdictional changes that would result from the proposed transfer of land owned by the Pokagon Band in South Bend to federal trust status, the St. Joseph County Board of Commissioners unanimously adopted Resolution R-12-C-2014 which approved the local governmental cross deputization agreement for law enforcement with the Pokagon Band of Potawatomi Indians. The agreement will allow both Tribal Police deputies and Sheriff's deputies to have reciprocal law enforcement jurisdiction and authority throughout St. Joseph County. This includes land that would be held in trust for the Pokagon Band as detailed within the resolution.

Fire Protection / Emergency Medical Service

Fire protection Measures for Alternatives A, B and C could include:

- Any construction equipment that normally includes a spark arrester would be equipped with an arrester in good working condition. This includes, but is not limited to, vehicles, heavy equipment and chainsaws. During construction, staging areas, welding areas, or areas slated for development using spark-producing equipment would be cleared of dried vegetation or other materials that could serve as fire fuel. To the extent feasible, the contractor would keep these areas clear of combustible materials in order to maintain a firebreak.
- The Band would ensure that it has in place provisions for adequate emergency, fire, medical and related relief and disaster services for residents, patrons, and employees.
- The Band could use fire resistant construction materials for the larger buildings and all equipment-enclosed buildings with automatic sprinkler systems would be designed to meet or exceed the applicable NFPA standards governing the different occupancies associated with the project structures.
- Through the use of modern construction and fire engineering techniques, the Band could build automatic systems for certain rooms that are designed to contain any fire to the room of origin.
- Through the use of modern fire engineering technology the Band could create and maintain a facility equipped with the latest early detection systems that insure an initial response to any fire alarm (automatic, local or report) within three minutes. This would rely on

automatic sprinkler systems in the occupied areas and smoke detention, along the automatic sprinkler systems, in the areas of the facility that are normally unoccupied, such as storerooms and mechanical areas.

- The Pokagon Band could pursue an agreement with the South Bend Fire Department if needed or the Elkhart Fire Department if needed to secure fire and emergency services.
- An Emergency Operation Plan must be developed under Band law, which will require cooperation with the South Bend and Elkhart Fire Districts, the project operators and other local authorities. This plan would provide for response and community notification protocols, as well as evacuation routes in the event of a catastrophic incident, such as a major earthquake or fire.

5.10 OTHER VALUES

5.10.1 Hazardous Materials

An Emergency Operation Plan must be developed under Band law, which requires detailed plans to protect life and property in any situation involving hazardous materials, including radiological hazards. As part of the Emergency Operation Plan, the following measures could be considered for Alternatives A, B and C:

- Personnel would follow written standard operating procedure for filling and servicing construction equipment and vehicles. The standard operating procedures, which are designed to reduce the potential for incidents involving hazardous materials, could include the following:
 - Refueling would be conducted only with approved pumps, hoses and nozzles.
 - Catch-pans would be placed under equipment to catch potential spills during servicing.
 - All disconnected hoses would be placed in containers to collect residual fuel from the hose.
 - Vehicle engines would be shut down during refueling.
 - No smoking, open flames, or welding would be allowed in refueling or service areas.
 - Refueling would be performed away from bodies of water to prevent contamination of water in the event of a leak or spill.
 - Service trucks would be provided with fire extinguishers and spill containment equipment, such as absorbents.
 - Should a spill contaminate the soil, the soil would be put into containers and disposed of in accordance with local, state and federal regulations.
 - All containers used to store hazardous materials would be inspected at least once per week for signs of leaking or failure. All maintenance and refueling areas would be inspected monthly. Results of inspections would be recorded in a logbook that would be maintained onsite.

- Staging areas, welding areas, or areas slated for development using spark-producing equipment would be cleared of dried vegetation or other materials that could serve as fire fuel. To the extent feasible, the contractor will keep these areas clear of combustible materials in order to maintain a firebreak.
- The amount of hazardous materials used in project construction and operation would be consistently kept at the lowest volumes needed.
- The least toxic material capable of achieving the intended results would be consistently used to the extent practicable.
- A hazardous materials and hazardous waste minimization program could be developed, implemented, and reviewed annually by the Band to determine if additional opportunities for hazardous materials and hazardous waste minimization are feasible, for both project construction and operation.
- The contractor could be requested to avoid and minimize the use of hazardous materials during the project's construction to the fullest extent practicable.
- The use of pesticides and toxic chemicals could be minimized to the greatest extent feasible in landscaping or a less toxic alternative could be used.

5.10.2 Noise

Construction noise associated with Alternatives A, B, and C could be minimized by appropriate measures, which may include limiting the hours of construction outside a standard workday construction window and shutting down equipment when not in use. During the operation phase, shuttle bus drivers for the operation could turn off buses when not in use to reduce idling noise.

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