Introduction

Environmental justice (EJ) is an important factor to consider in the environmental analyses required under the National Environmental Policy Act (NEPA). It is not a stand-alone factor with its own unique checkbox. Neither is it an afterthought. Other factors may, and oftentimes do have EJ implications. Consideration of EJ should start early in the NEPA process (i.e., during scoping). In evaluating the impacts of a transportation proposal, consideration of EJ should begin with the very **first** environmental factor. Meaningful and continuous public engagement is imperative.

These Flashcards have been developed as a tool to help the analyst examine each environmental factor more closely for EJ implications. Impacts resulting from a transportation proposal may have beneficial or adverse effects on minority populations and low-income populations. For example, in filling a wetland (a negative impact to the wetland), WisDOT is concerned about the wetland loss that can appropriately be mitigated with banking. From an EJ perspective, WisDOT should also determine whether minority populations and low-income populations may value the wetland as a food source and for its cultural significance. Using this approach to the analysis, **factorby-factor**, the analyst is in a better position to determine whether a project will have a disproportionately high and adverse effect on minority populations and low-income populations, which is the essence of an EJ analysis.

Once an EJ population has been identified in the project's study area, the EJ Factor Sheet-B4 is to be filled out. Together, the Flashcards and the EJ Matrix should be used as a supplement to the EJ Factor Sheet to help gather the information needed to fill out the Factor Sheet and to write up the analysis for an Environmental Assessment (EA) or an Environmental Impact Statement (EIS).

Finally, the list of questions for each Flashcard is not exhaustive. They will be updated as WisDOT gains more experience in implementing Executive Order 12898 on environmental justice.

Business and Economics Impact Evaluation

- □ Given the existing economic characteristics of the project area, will the minority owners or low-income owners, operators, or employees of the farms or businesses in the area experience any adverse effect because of this proposal? The nature of the adverse effect includes decrease in sales, loss of income or employment, business closure or relocation, loss of business visibility, changes in tax base, loss of farmland, loss of or change in access, increased transportation cost, increased rents, increased travel time.
- Will minority owners, operators, or employees experience any benefits because of this proposal? Benefits could include job generation, increase in property value, improved access, increased visibility, decreased travel time.
- Will minority owners, operators, or employees experience any adverse effects because of the proposal? Adverse effects could include job loss, decrease in property, decreased visibility.
- □ Will the implementation of this project produce any adverse effects on transitdependent minority residents or low-income residents who commute to jobs and services in and out of the project area (e.g. increased transportation cost, decreased access, including transit access impacted by detours)?
- □ Will the proposal produce any beneficial effects, including decreased transportation cost, increased access?
- □ Will the proposal produce any beneficial or adverse effects on residents who depend on other modes of transportation, such as, but not limited to bicycle and pedestrian facilities, busses, and paratransit accommodations?

Community Impact Evaluation

- Will any changes in the types and volumes of traffic resulting from the proposed action produce an adverse effect on minority residents or low-income residents (e.g., congestion, noise, vibration, air pollution, reduced safety for non-motorists, limit access to areas or resources)?
- Will the implementation of this project produce an adverse or beneficial effect on minority residents or low-income residents who depend on transit and other non-automobile modes of transportation?
- □ Will minority residents or low-income residents endure any adverse effects on existing and planned land uses in the project area because of the proposal (e.g., decrease in property value, changes in the character of the neighborhood with the introduction of new land uses, commercial growth, and neighborhood separation)?
- □ Will any changes to mass transit, emergency service or other public services during and after construction of the proposed project adversely affect minority residents or low-income residents (e.g., police and fire response time)?
- Will any community facilities, including non-profit organizations, used by minority residents or low-income residents be affected by the proposal? Will the availability of public and private facilities and services be disrupted as a resulted of the proposal?
- □ Will any residential buildings owned or occupied by minority residents or low-income residents be impacted by the proposal?
- □ Will the relocation or other adverse effect on the affected minority or low-income individuals isolate, exclude, or separate them from the broader community?
- □ Will the proposal cause destruction or disruption of community cohesion or the community economic and social vitality?
- □ Will the proposal disrupt any man-made or cultural resources, or neighborhood features?
- □ How do these numbers compare to effects on the general population?

Aesthetics Impact

- □ Will minority viewers and low-income viewers of the improved transportation facility have a similar view from the facility as non-minority viewers or non-low-income viewers?
- □ Will minority groups or low-income groups experience any adverse or beneficial visual effects because of this proposal?
- □ If aesthetic enhancement measures are used, are they implemented in a nondiscriminatory fashion?

Agricultural Impact Evaluation

- □ Is the farm(s) in question owned or operated by minority individuals or low-income individuals?
- □ Will migrant workers experience any beneficial or adverse effects because of the project?
- □ Will the farm be split by right-of-way acquisition?
- □ Will farm field access and farm equipment mobility be impacted?

Relocations Impact Evaluation

- How many minority-owned or low-income businesses, industries, and employees will be displaced or relocated because of the proposal? How do the numbers compare with the effect on the general population?
- How many minority employees or low-income employees will lose their jobs because of this displacement or relocation? How do the numbers compare with the nonminority/non-low-income employees?
- □ Is a minority neighborhood or low-income neighborhood dependent upon the displaced businesses for its economic, social, or cultural vitality?
- Will the displacement or relocation of the business or service result in an increase in travel time and cost to minority populations and low-income population who will need access to the business or service?
- Will any community facilities, including non-profit organizations, used by minority residents or low-income residents be relocated or displaced by the proposal? Will the availability of public and private facilities and services be disrupted as a resulted of the proposal?
- Will any residential buildings owned or occupied by minority residents or low-income residents be displaced or relocated by the proposal?
- Will any minority households or low-income households be displaced or relocated? If so, what are the number and characteristics of those households?
- □ Will any dwelling areas for the homeless or mobile homes be displaced or relocated?
- □ Will any community facilities, including non-profit organizations, used by minority residents or low-income residents be displaced or relocated by the proposal?

Indirect Impact Evaluation

- □ If minority populations and low-income populations are identified in the project study are, were their input sought early (as early as scoping) and continuously in the indirect impact analysis process?
- If minority populations and low-income populations are identified in the project study area, did the methods used for analyzing indirect impacts (e.g., expert panels, focus groups, etc.,) include representation from minority populations and low-income populations?
- In a reasonably foreseeable timeframe, could the project potentially impact the natural, cultural, historic heritage, or socio-economic conditions of minority populations and low-income populations in the project's area of influence?
- In a reasonably foreseeable timeframe, could the project potentially impact any notable features inventoried in the study area (groundwater recharge areas, wetland, stream and other water features; cultural and historic sites, park sites, low-income housing etc.) that are valued or utilized by minority populations and low-income populations?
- □ Are the data and information collected on minority populations and low-income population adequate for the analysis?
- □ What strategies are identified to avoid, minimize, and mitigate potential foreseeable impacts to minority populations and low-income populations? Were the strategies identified in consultation with minority populations and low-income populations?
- □ Were the viewpoints of minority populations and low-income populations sought in the identification of mitigation strategies?

Cumulative Impact Evaluation

- □ If minority populations and low-income populations are identified in the project study are, were their input sought early and continuously in the cumulative impact analysis process?
- Is the resource study area (RSA-which may overlap the project's study area but isn't necessarily the same) appropriately defined to include the resources valued by minority populations and low-income populations?
- □ Were minority populations and low-income populations consulted to assess what resources, if any, are valued and to appropriately define the resources?
- □ What is the history, current status, and viability of the EJ resources and the recent trends affecting the resources?
- Will the project exacerbate an existing problem (e.g., neighborhood separation resulting from a previous project, transportation or non-transportation, changes in access to specific services or products, community disruption or displacement) experienced by minority populations and low-income populations?
- □ Were the viewpoints of minority populations and low-income populations sought in the identification of mitigation strategies?

Cultural Resources Impact Evaluation		
	 Will the proposed project impact any current or traditional social or cultural practices or places of minority populations and low-income populations, especially Native American populations? This will include: Current or traditional meeting places Current or traditional cultural activity locations Current of traditional sacred places Current or traditional gathering places, such as sugar bushes, medicinal or sacred plant areas, fishing or spearing locations, etc. Current or traditional ceremonial places Archeological sites 	
	Will the proposed project impact resource areas important for subsistence or are culturally significant to the EJ population, especially Native American populations (wetlands, rivers, lakes, plants, tree, animals, fish, birds)?	
٥	Will the proposed project impact economic resources utilized by EJ populations, including Native American populations (business, natural resources)?	
	Will the proposed project change access to any of the resources?	
	Will the proposed project impact the quality of the resources?	
	Will any of these changes impact the populations' use of any of the resources?	
٥	Do the adverse effects resulting from this proposal exacerbate any on-going problem or issue?	
	Are the impacts identified on these populations proportionate to those experienced by the public in general? Greater or less?	
	Note: See Flashcards on 4(f), 6(f), Wetlands, Rivers and Waterways, Upland Wildlife and Habitat.	

4(f) Resources Impact Evaluation

Will the proposal have a beneficial or adverse effect on any parkland or other unique area that are close to minority communities and low-income communities (reduced acreage, increase in noise level, park enhancement measures, etc.)?

6(f) Resources or Other Special Funding Impact Evaluation

□ Is any recreational land used by minority population or low-income populations being converted to a transportation purpose as a result of this project?

Wetlands Impact Evaluation

- □ Are the waterfowl, fish, and wildlife populations (including mammals) inhabiting or depending on the affected wetland consumed by minority populations or low-income populations for subsistence protein or for food in general?
- Do minority populations or low-income populations depend on the wetland for other food supplies (for example, rice, berries, nuts, or other wild edible plant material: cattail, etc.)?
- Do the wetland plant and wildlife communities have medicinal, spiritual, or cultural significance for minority populations or low-income populations?
- Does the wetland itself have cultural or spiritual significance to any minority population or low-income population?
- Does the wetland have economic or recreational value to minority populations or lowincome populations (fishing, trapping, collecting-for basket making; porcupine quill or other craft resources)?
- □ Will the proposal result in water quality impacts that could affect minority populations or low-income populations?
- □ Will the proposal impact the access to the wetland, either through improved access or restricted/limited access?
- Do the adverse impacts identified exacerbate any on-going problems or issues?
- □ How do these impacts compare to the impacts on the general population? Are they proportional? Are they greater or less?

Rivers, Streams and Floodplains Impact Evaluation

- Will the adverse effects on fish and aquatic populations affect minority populations or low-income populations who depend on the fish populations as a subsistence protein source?
- Will the activity affect the flood elevation or storage capacity in a way that could impact minority populations or low-income population, such as flooding or altered property values?
- Does the stream/floodplain have recreational value to minority populations or lowincome populations?
- □ Will the proposal result in water quality impacts that could affect minority populations or low-income populations?

Lakes or other Open Water Impact Evaluation

- Will any adverse effects on the fish populations or wildlife populations affect minority populations and low-income populations who depend on these resources to provide subsistence protein or food in general?
- □ Will the project have an adverse impact on drinking water supplies, quality, and safety?
- Does the lake or waterbody have recreational, cultural, or community value to minority populations or low-income populations? Will these values be diminished because of the project?
- □ Will the proposal impact the access to the lake or water body, either through improved access or restricted or limited access?

Groundwater, Wells and Springs Impact Evaluation Within an EJ community, will the project have an adverse impact on drinking water supplies, quality, and safety? Will the proposal negatively impact a sole source aquafer such that groundwater, wells or springs in minority communities or low-income communities are compromised? Will there be any negative impacts on sensitive aquatic resources upon which minority populations and low-income populations rely for subsistence protein and for food in general? Does the spring have recreational, economic, or cultural value for minority populations and low-income populations? Note: See Flashcards 11, 12, and 13.

Unique Wildlife and Habitat Impact Evaluation

- □ Is any plant community adversely affected by the proposal valued by minority groups or low-income groups for its medicinal properties; cultural or spiritual attributes?
- Do any of the wildlife or habitat have economic value to the groups (trapping, collectingfor basket making; birch tree, crafting)
- Does the affected minority group or low-income group rely on the vegetation for food and cultural uses (mammals, birds, berries, wild onions, other plant and animals)?
- □ Will the severance or elimination of a wildlife or waterfowl use area or movement corridor resulting from the proposal adversely affect minority groups or low-income groups who depend on these resources for subsistence protein or food in general? Will it have a negative impact on recreation (hunting)?
- □ Will the proposed project change access to or affect the use of any of the resources?
- Do the adverse impacts resulting from the project exacerbate any on-going problem or issue?
- □ Are any impacts identified on the populations proportional to those experienced by the public in general? Are they greater or less?

Coastal Zones Impact Evaluation

- Would flooding/rising waters negatively impact homes of minority populations and low-income populations?
- □ Would flooding/rising waters pose a threat to agricultural lands, crop yields (i.e., wild rice and other native species)?
- □ Would flooding/rising waters negatively impact recreational areas valued by minority populations and low-income populations?
- □ Would fishery and aquatic habitat be negatively impacted?

Threatened and Endangered Species Impact Evaluation Do any threatened or endangered species impacted because of this proposal have cultural or religious importance to minority populations and low-income populations?

Air Quality Impact Evaluation

- □ Will the proposal increase or reduce congestion in minority neighborhoods or low-income neighborhoods?
- □ Will the clean-up of contaminated sites increase air pollution in minority communities and low-income communities?
- □ Will the proposed facility be closer in proximity to minority populations, low-income populations and other sensitive groups such as children, the elderly, those with impaired health?

Construction Stage Sound Quality Impact Evaluation		
٥	Will any minority or low-income residences or other noise-sensitive facilities be in use during construction of the proposed action?	
	Will the project increase noise levels and vibration near traditional cultural places or areas of importance?	

Traffic Noise Impact Evaluation

□ Will minority-occupied or low-income-occupied residences, or community facilities be exposed to an elevated level of noise pollution after construction of the proposed action based on traffic, roadway, terrain, and receiver characteristics affecting sound levels?

Hazardous Substance or Contamination

- In implementing this proposal, are the same considerations accorded to nonminority/non-low-income communities in handling hazardous substances or underground storage tanks accorded to minority communities or low-income communities?
- □ Are there sites that will be partially or fully "cleaned up" (remediated) as part of this project to the benefit of minority communities or low-income communities?

Stormwater Impact evaluation

- Will any groundwater recharge areas, drinking water supply protection areas, karst formations in minority communities or low-income communities be negatively impacted from the proposal?
- Will stormwater runoff best management practices be installed to reduce pollutant constituent of concern from WisDOT right-of-way in urbanized minority communities and low-income communities to return 403b impaired water bodies to original designated uses, such as recreation, fishing, wildlife support, etc., as required by the Transportation Separate Storm Sewer System permit?
- □ In these communities, have water drainage basins with EPA approved Total Maximum Daily Loads reduction goals been addressed?

Erosion and Sediment Control Impact Evaluation

Will any sensitive resource consumed or utilized by minority populations and lowincome populations (wild rice, fisheries, cranberries, etc.) be negatively impacted by erosion, sedimentation, or water quality degradation resulting from the proposal?