

# Northern Waters Solar Park Informational Memorandum

**Sandhill Crane Habitat:** Sandhill cranes have the potential to pass through the Project site during their spring and fall migration periods, and there is potential for sandhill cranes to spend their summer breeding period in Michigan. Preferred habitat for sandhill cranes includes a variety of open wetland environments and cranes often feed in agricultural fields adjacent to this wetland habitat. The Project was designed to avoid wetlands and riparian areas and has included wildlife movement corridors through riparian corridors. Although the cranes may be displaced from some use of agricultural areas, there is abundant habitat, both wetland and agricultural, in close proximity to the Project area which can be utilized by cranes passing through the area. Northern Waters has provided a memorandum from an independent consultant analyzing sandhill crane habitat in the Project area.

**Soil Erosion & Sedimentation Control:** Prior to starting construction, Northern Waters Solar Park will acquire a permit for Soil Erosion & Sedimentation Control (SESC) via Part 91 of Natural Resources and Environmental Protection Act (NREPA). This includes appropriate measures to prevent erosion and sediment contamination of surface waters, and dust control during construction. The Part 91 SESC permit shall ensure water runoff does not cause sediment intrusion or erosion on areas outside of the construction area.

**Weather & Solar Panel Efficiency:** Panel technology has continued to evolve in recent years and has demonstrated its efficiency in a vast range of climates. The panels expected for Northern Waters will be single-axis tracking, meaning they will follow the sun's movement from east to west throughout the day. Additionally, the panels will be bifacial, meaning they are capable of absorbing sunlight from both sides of the panel. This bifacial capability allows for benefits from the albedo effect, referring to the reflectivity of sunlight off the ground. Conditions such as snow cover or ice result in high albedo, thus enhancing solar energy generation during the winter. Both tracking and bifacial technology enable a more efficient solar project by maximizing absorption of sunlight.

**Telecommunications:** Northern Waters had an independent consultant perform a telecommunication impacts analysis of the Project, which can be found in Appendix L of the Permit Application. The full report is included within the Permit Application and shows no impacts or mitigation techniques required for a broad, all-encompassing range of existing wireless telecommunication systems. In short, the frequency generated from solar projects is comparatively lower than telecommunications services, therefore not causing disruptions.

**Future Phases:** EDPR does not currently have any plans for the development of wind farms in Cheboygan County. The Special Use Permit Application for Northern Waters Solar Park represents a singular Level 3 Solar Energy System Photovoltaic Project. Any additional phases of renewable energy projects would require a new Special Use Permit application process, regardless of the decision on the Northern Waters Solar Park Application.

**Participating Land:** All participating land in the Project is privately owned. Landowners have chosen to enter into long-term lease agreements to host solar facilities.

**Project Tax Revenue:** Northern Waters is expected to generate over \$24 million in local tax revenue over the Project's 35-year lifetime. This estimate is based on applying the current

industrial personal property tax rates in Cheboygan County to the total estimated cost to construct the Project. Over \$2 million will be generated during the first taxable year of Project operation, going toward local services and infrastructure for Grant Township and the greater Cheboygan area that is relied upon by residents. Most of this revenue will benefit area schools, as well as the library, roads, fire, ambulance, and 911 services. There is a 10-year depreciation schedule designated for solar energy systems by the Michigan Department of Treasury, which has been accounted for in the \$24 million cumulative estimate. Additional funding opportunities and grants for the community have not been included within this tax revenue estimate.

### ESTIMATED TAX PAYMENTS TO COMMUNITY

Taxing District	Tax Payment Breakdown in Year 1	Total Lifetime Revenue (by 2063)
Cheboygan Area Schools	\$457,009	\$7,313,059
Cheboygan County Operating	\$672,394	\$6,895,525
Intermediate School District	\$205,295	\$2,105,341
Public Library	\$138,519	\$1,420,543
State Education Fund	\$51,477	\$1,403,356
County Road Department	\$118,565	\$1,215,906
Fire Department	\$116,609	\$1,195,844
Grant Township	\$116,609	\$1,195,844
Senior Citizen Fund	\$59,283	\$607,953
CCE 911	\$59,283	\$607,953
Ambulance	\$58,559	\$600,536
<b>TOTAL</b>	<b>\$2,053,601</b>	<b>\$24,561,859</b>

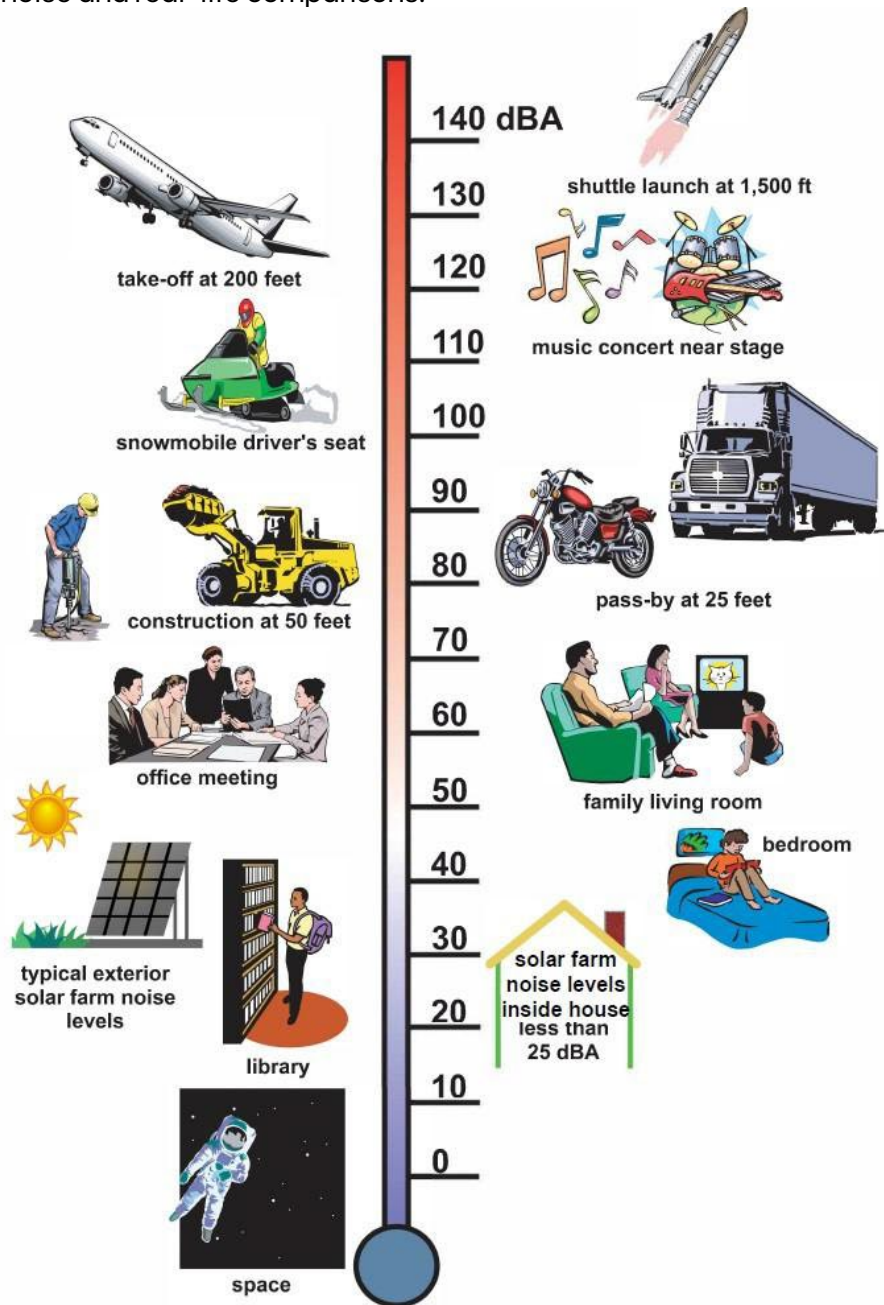
**Host Community Agreement:** Cheboygan County also requires a \$2,000 per megawatt lump-sum payment through a “Host Community Agreement,” for any renewable energy project permitted within the County. Northern Waters will enter into this Agreement with the County and provide \$220,000 once the Project is operational. This funding opportunity allows the County to improve local infrastructure and critical services for citizens

**EGLE RRCA:** By permitting Northern Waters through the local governing bodies in Cheboygan County, as opposed to the State of Michigan, both Grant Township and Cheboygan will each be eligible to apply for up to \$275,000 in discretionary funding through the Department of Environment, Great Lakes, and Energy (EGLE) Renewable Ready Communities Award (RRCA). If awarded, half of the total funding will be distributed upon commencing construction, and the other half once the Project is fully operational.

**Safety:** Safety is EDPR’s #1 priority. Northern Waters will work with local emergency departments to inform and educate staff on the details of the Solar Park. A safety plan was developed for the Permit Application in accordance with Cheboygan County Zoning

Ordinance requirements and can be found in Appendix N. EDPR will continue to expand this Plan prior to construction. EDPR has had initial conversations with the Cheboygan County Police, Emergency Management, and the Alverno Fire Department.

**Noise:** As stated in the Noise Analysis in Appendix G of the Permit Application, once operational, the noise of the Facilities will be below the 55dBA limit at exterior walls of nearest occupied dwellings and under 60 dBA at the Facility perimeter (participating property line). Please refer to the chart below, also included in the Noise Analysis, which indicates varying levels of noise and real-life comparisons.



## SOUND PRESSURE LEVELS

SOURCE: HANKARD ENVIRONMENTAL, INC. - JANUARY 2023

**HANKARD**  
**ENVIRONMENTAL**  
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