

Michigan Trout Unlimited

Policy Statement – Adopted September 27th, 2014

Protecting Coldwater Fisheries from Impacts of Oil and Gas Development

Scope and Purpose:

The mission of Michigan Trout Unlimited (MITU) is to conserve, protect and restore Michigan's coldwater fisheries and their watersheds. Central to this mission is the promotion of land use management that maximizes coldwater habitat conservation and minimizes impacts caused by land use activities, including oil and gas development. There is significant overlap in the range of Michigan's salmonid fisheries and oil and gas reserves, necessitating thoughtful consideration for where and how development occurs in watersheds that sustain coldwater habitats. The purpose of this policy statement is to guide MITU in conservation of salmonids and their habitat in places where oil and gas development, production and transportation and terminal storage of oil and gas resources are occurring. Additionally, the cumulative removal and disposal of fresh water from the aquifers in the course of oil & gas activities requires attention. This policy is not intended to cover all forms of energy development, but rather to deal directly with oil and gas extraction and the practices associated with the development of these resources.

MITU Policy Statement on Fracking

Michigan Trout Unlimited (MITU) has taken this position on Hydraulic Horizontal Fracturing to improve how fracking is conducted in the State of Michigan. MITU will continue to be engaged with the fracking process by working closely with coalition partners, industry leaders, regulatory agencies and the Michigan legislature. MITU desires to promote quality solutions for protecting Michigan natural resources while simultaneously allowing the Gas & Oil Industry to continue to develop and acquire minerals.

MITU shall continue to motivate the Department of Natural Resources to alter the leasing of minerals in "Special Places" to Non-Leasable (NL) or Non Development Lease (NDL) status. MITU shall continue to motivate the Department of Environmental Quality to strengthen the regulations pertaining to gas and oil development, including Hydraulic Horizontal Fracturing to protect our freshwater resources. MITU shall continue to encourage the Gas & Oil Industry to uncover new technologies and implement these new or existing technologies that lower the volumes of freshwater being taken from Michigan's aquifer. MITU may develop and promote guidelines or best management practices for horizontal fracking that reduce impacts from it on coldwater fisheries, and promote the adherence to these within the oil and gas industry. The fracking technology that is currently being conducted may negatively impact Michigan's rivers and streams where trout thrive. It is the objective of MITU to improve the fracking process to ensure negative impacts do not occur with Michigan's freshwater resources.

Background:

It is important to recognize, Michigan has been engaged with gas and oil development for most of the 20th Century and will continue in Michigan well into the future. This industry provides tremendous revenue to the State of Michigan, has profound economic impacts for communities around the State, and is very profitable for many companies and individuals who invest in this industry. There have also been negative impacts on our natural resources. For more than 40 years, developers of natural gas have been Hydraulic Fracturing (Fracking) while producing gas from the Antrim Shale formation. Recent exploration and development in the Collingwood-Utica Formation has caused these companies to implement Horizontal Hydraulic Fracking, changing the dynamics of “fracking” and the volumes of water used during this process. This formation is approximately one mile below the earth’s surface.

In other areas of the country Horizontal Hydraulic Fracking is occurring in formations that are significantly and structurally different than the Collingwood-Utica Formation. In the Collingwood-Utica Formation the substrate is higher densities and lower porosities than other formations where Horizontal Hydraulic Fracturing is occurring.

Current Activity:

Each well pad creates an opening of approximately 5 acres. There can be between 5 to 8 wells on each well pad. Each new well in the Collingwood/Utica Formation requires the use of 5,000,000 and 30,000,000 gallons of water, extracted from local aquifers. Fracking fluid chemicals and sand are added to the extracted water, and then injected into the well hole. Approximately 75% of the fracking fluid is pumped back out of the well and into truck containers. The Fracking fluid is then transported to and injected, untreated, into a deep injection well, never to be used again (isolated from the water cycle).

Water Monitors have been installed by Michigan State University in cooperation with conservation organizations in many rivers and headwaters streams in northern Lower Michigan. These water monitors are detecting flow, temperature, and chemical changes, which establishes scientific baseline data to be used for future comparisons.

Meetings have ensued between a coalition of conservation organizations and the DEQ to improve the work activities of the companies engaging in fracking activities. Requests to inform the coalition as to permit requests and locations, chemical disclosure, reduction of surface disturbance, and the reuse of the chemically treated water have been conveyed. Discussions on each issue have also ensued, with some positive resolutions.

Recommendations:

The following recommendations augment the overall position of MITU and illustrate the complexity of factors that need to be considered in protecting coldwater fisheries.

Management Goals & Strategies

Goals

- Oil and gas development must not harm water resources that are vital to fish and wildlife and important to local communities.
- Available technology to reuse Fracking fluid must be considered and used for other fracking locations.
- Contaminated groundwater must be evaluated and considered with the highest priority to be used for Fracking fluid before freshwater is even considered.
- Headwaters regions of watersheds must be placed into Non Development (ND) to Gas and Oil Development, as these resources are the most vulnerable to instability, and have the lowest ability to withstand large groundwater withdrawals without impacts to stream fisheries. Water withdrawal from these regions will negatively affect surface stream flows, and affecting the environs of fisheries and wildlife; and should be prohibited.
- The DNR Director has committed to create a committee to develop criteria on “Special Places and Setbacks”. These “Special Places and Setbacks” must be identified by meeting the established criteria and then designated as None Leasable. For example: One mile set backs from river corridors and wetlands, Mason Tract, Pigeon River Country State Forest, Sleeping Bear Sand Dunes, Mackinaw Island, etc.

Strategies

- Public lands must be managed for multiple uses; responsible oil and gas development should only occur where it is compatible with other resources, including the protection of fish and wildlife habitat, hunting, angling, and other outdoor recreation activities. The key role of aesthetics on outdoor recreation must be stressed, so that fracking operations do not have negative consequences to the outdoor recreation economy of Michigan.
- Measures must be implemented for monitoring the effects of oil and gas development on coldwater ecosystems and the ability for management agencies to implement corrective actions if environmental impacts are detected should be improved.
- Monitoring should be required on Gas & Oil – Water Wells to measure the volume of water being extracted from the aquifer during the water withdrawal process, and to help ensure accurate stream index flows are used in the water withdrawal assessment process for evaluating impacts of these water withdrawals.
- MITU should work to promote or encourage the development of scientific modeling platforms to better predict the impacts of large short-term water withdrawals in coldwater fisheries. The current MI water withdrawal assessment tool was designed to predict impacts of perennial summertime water withdrawals on stream fisheries.

Regulations

- State and federal permitting processes for oil and gas development must incorporate comprehensive environmental analysis, including cumulative impact and risk analyses, in order to account for future, long term impacts and to protect critical habitat and sustain fish, wildlife and water resources.
- Where oil and gas are currently being developed, MITU will advocate for strong regulations, management practices and monitoring that protect valuable water resources and fish and wildlife habitat.
- Exemptions from the Clean Water Act and Safe Drinking Water Act for oil and gas development must be repealed.
- State water laws and regulations must be strengthened and strictly enforced to ensure groundwater withdrawals not occur in sensitive regions where headwaters streams and wetlands could be negatively impacted. These laws and regulations must protect these “Special Places and Setbacks”.
- State water laws and regulations must protect sensitive regions where headwaters streams and wetlands from the toxins and contaminants found in fracking water, brine, flow back and other oil and gas drilling-related wastewater. These laws and Regulations must also protect these headwaters streams and wetlands from adverse resource impacts and dewatering during water extraction.
- High quality treatment facilities must be required to achieve recycling of the Fracking Fluid. The recycling of fracking fluid will protect Michigan’s fresh water resources and will reduce the volumes of fresh water needs in the Gas & Oil Development process. Permanently removing water from the global water cycle is irresponsible and unethical, and will have negative legal ramifications for upholding the Great Lakes Compact into the future.

Technologies

- New technologies should continue to be researched, developed and implemented that allow for more efficient resource extraction that reduces the footprint of development and minimizes impacts.

Communications

- Michigan Trout Unlimited should seek to collaborate with industry leaders and operators, as well as state and federal agencies on development projects to encourage operators and regulators to minimize impacts and apply the maximum protection for fresh water, fish and wildlife resources.
- Michigan Trout Unlimited must continue to meet with industry leaders to express concerns, provide quality solutions, and listen to industry issues.
- Michigan Trout Unlimited should identify, recognize, and communicate with companies who are researching to uncover the best methods of mineral extraction, and then developing and implementing the best available technologies.
- Michigan Trout Unlimited must communicate with the Michigan Gas and Oil Association leaders to allow both organizations to better understand the concerns, issues and challenges of each side.

Mitigation

- Each oil & gas company is currently bonded to resolve any potential disastrous or catastrophic event. Both regulatory and enforcement agencies must enforce the rules or laws to the fullest extent possible when violations occur, leaks are detected, and/or contamination occurrences.
- Each oil and gas company must pay the cost of habitat mitigation and restoration on public lands that are impacted by development, including all remediation associated with anticipated and/or unexpected impacts or accidents, and restoration of the well pad sites following completion of the wells.
- Comprehensive mitigation and reclamation of fish, wildlife and fresh water resources should be a fixture in all oil and gas permitting, including an appropriate level of bonding required for each project. Mitigation should emphasize impact avoidance, not replacing or offsetting a loss of ecological function.
- If heavy vehicle use for well development crosses streams, an adequate bridge must be installed as to prevent any vehicle or equipment from entering the water. The adequacy of the road stream crossing in preventing sedimentation to the stream through the expanded use should be evaluated and addressed. The companies developing the well pad should be required to address the added sedimentation that will occur. Use of matting or timber should be required in all areas adjacent to wetlands and all surface streams, rivers and lakes to prevent disturbance to the soils.

Land Use

- Strategic placement of well pads must be considered. Michigan's public lands are used by diverse user groups. In order to achieve a "Pure Michigan" experience, impacts on these other users of public land must be considered.
- The extraction of oil and gas reserves, and the disposal of fracking fluids, often requires transportation from well pads via road, rail, or pipeline to terminals or deep injection well sites where the resources are stored prior to refinement or disposed of by deep ground injection. Adequate safeguards to prevent pollution of aquatic resources between extraction sites and refineries must be mandated in the permitting process.
- Wherever possible, areas that have previously been impacted by land use activities should be utilized for oil and gas development and intact landscapes should be avoided.

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