

**SUMMERFIELD TOWNSHIP
MONROE COUNTY, MICHIGAN**

**RESOLUTION TO REQUEST THE
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
AND THE MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
TO PROMULGATE APPROPRIATE KARST GEOLOGY STANDARDS
TO PROTECT SUMMERFIELD TOWNSHIP'S GROUNDWATER SUPPLY**

THE SUMMERFIELD TOWNSHIP BOARD, SUMMERFIELD TOWNSHIP,
MONROE COUNTY, STATE OF MICHIGAN, RESOLVES:

WHEREAS, Summerfield Township is characterized by karst terrain/geology, which is comprised of distinctive land formations characterized by depressions, swallows, sinkholes, caves, springs, and a unique hydrogeology that results in aquifers that are highly productive but extremely vulnerable to contamination; and

WHEREAS, Summerfield Township geology is uniquely impacted by the fact that the Monroe County land mass was historically part of Lake Erie. This unique historical fact has resulted in increased karst geology and topography in Summerfield Township; and

WHEREAS, numerous studies exist concerning Monroe County, Michigan karst terrain/geology, including studies performed by the United States Department of Energy, the United States Geological Survey, the Michigan Department of Natural Resources, now known as the Michigan Department of Environmental Quality, Wayne State University, and Eastern Michigan University; and

WHEREAS, the hollow nature of karst terrain/geology results in a very high pollution potential in groundwater and soils. Streams and surface water entering karst terrain/geology bypass natural filtration processes and can allow contaminants to travel considerable distances without filtration or purification; and

WHEREAS, the vast majority of Summerfield Township residents depend on wells for their primary source of drinking water; and

WHEREAS, deep water irrigation wells which draw several hundred gallons of water per minute are routinely used by Summerfield Township agricultural producers to irrigate and process foods for human consumption; and

WHEREAS, notwithstanding the potential of groundwater contamination that exists in Summerfield Township due to the predominance of karst geology, oil and natural gas companies are seeking ways to dispose of oil and natural gas waste in Summerfield Township, including, but not limited to the creation of injection wells to dispose of the waste derived or resulting from the extraction of oil and/or natural gas; and

WHEREAS, the United States Environmental Protection Agency has previously opined that waste-disposal facilities should not be located within a karst terrain (EPA/600/X-89/050); and

WHEREAS, oil and natural gas waste may contain water, rock cuttings, and sludge contaminated with carcinogenic chemicals such as benzene, heavy metals such as arsenic and mercury, and radioactive material such as radium, radon, uranium, thorium, polonium, and strontium; and

WHEREAS, due to the predominance of karst geology in Summerfield Township, the injection of waste derived or resulting from the extraction of oil and natural gas into the ground or on the ground, or in the surface waters, or onto the land or into the air in Summerfield Township can pose a significant threat to the public health, safety, and welfare of all Summerfield Township citizens, and negatively impact Summerfield Township property; and

WHEREAS, the significant threat posed by the injection of waste derived or resulting from the extraction of oil and natural gas into the ground or on the ground, or in the surface waters, or onto the land or into the air in Summerfield Township is further intensified by the diversity of land uses present in Summerfield Township, including, but not necessarily limited to, agricultural and livestock production, roadways, railroad right-of-ways, commercial and industrial operations, and the high density of residences and residential developments surrounding said land uses. Summerfield Township is different from other karst areas and is therefore unique due to the intensive and diverse land uses and population; and

WHEREAS, the existence of contaminants currently found in groundwater samples from other sources, and the introduction of further waste into the karst geology of Summerfield Township could cause real and present danger to the citizens and property of Summerfield Township; and

WHEREAS, the disposal of any contaminated oil and gas mining waste would constitute a hazard and a danger to the public health, safety, and welfare of the citizens of Summerfield Township and their property, and would further create a public nuisance and a nuisance per se.

NOW THEREFORE, based upon the findings set forth above, IT IS HEREBY RESOLVED, that there is a potential threat to the public health, safety, and welfare of the citizens of Summerfield Township and the property of Summerfield Township, and in recognition of that potential threat the Summerfield Township Board respectfully requests the United States Environmental Protection Agency and the Michigan Department of Environmental Quality to officially recognize that a predominate geographic segment of Summerfield Township, Monroe County, Michigan is characterized by karst geology/terrain and to act with due diligence and urgency in promulgating appropriate karst geology standards to be applied within EPA Region 5, which includes Monroe County, Michigan for the protection of Summerfield Township's groundwater supply and for the protection of the public health, safety, and welfare of the citizens of Summerfield Township and their property.

This Resolution was adopted by the Summerfield Township Board at a regular meeting, by a vote of the majority of the membership of the Summerfield Township Board on the _____ day of _____, 2016.

This Resolution was offered by _____, and supported by _____.

A roll call vote was taken and this Resolution was passed by a vote of: _____

Those voting in favor: _____

Those voting against: _____

The Resolution was declared adopted.

John Chandler
Summerfield Township Supervisor

ATTEST:

Trudy Goodin, Summerfield Township Clerk