

**Response to “Assessment of Environmental Impacts Associated with the Proposed
Timber Shores Development” by Mark R. Luttenton, Ph.D.**

May 11, 2021

**Prepared by Charles L. Wolverton
on behalf of N.M Investment Company LLC**

INTRODUCTION

Mark R. Luttenton, Ph.D. prepared a document titled “Assessment of Environmental Impacts Associated with the Proposed Timber Shores Development” dated March 17, 2021 (“the Luttenton report”) which was received by Steve Patmore, Leelanau Township Zoning Administrator, on April 7, 2021 and posted on the Township’s website. It is very apparent after reviewing the Luttenton document that he has not been on the project site and that many of his conclusions regarding the environmental impacts of the proposed Timber Shores project are without basis. The purpose of this response to the Luttenton assessment is to point out errors in the report, to clarify misconceptions, and to refute conclusions regarding environmental impacts made by Luttenton in his report in an attempt to keep the review of the environmental impacts of the proposed Timber Shores project based on facts and not on speculation or erroneous assumptions.

This response to the Luttenton report has been prepared by Charles L. Wolverton, natural resources consultant for NM Investment Company LLC (“NM”). Mr. Wolverton has over 45 years’ experience in the natural resources field, including employment by the Michigan Department of Natural Resources and work in private section consulting. Mr. Wolverton has been certified in the past as a Certified Senior Ecologist by the Ecological Society of America and as a Professional Wetland Scientist by the Society of Wetland Scientists and has B.S. and M.S. degrees from Michigan State University. Mr. Wolverton has conducted numerous on-site natural resources investigations on the Timber Shores property for various projects over the past 25 years.

COMMENTS ON THE LUTTENTON REPORT

Although the Luttenton report does not have pages numbered, comments are provided on a page-by-page basis for the reader to be able to follow.

Page 1.

Luttenton concludes in the second paragraph of his report “...*this project will or is very likely to cause ecological impacts to the terrestrial environment, stream habitat, wetlands, and the nearshore region of Grand Traverse Bay.*” This basis of this conclusion will be analyzed throughout this response and the validity of the conclusion made by Luttenton will be presented at the end of this response.

Luttenton further states in the second paragraph of page 1 “*In particular, although there are no records of threatened/endangered/special concern (T/E/SC) species for the construction site, it doesn’t necessarily mean those species are not present on the site, it is more likely that no one has actually surveyed the area.*” In fact, such surveys for listed species has occurred on the subject property in the past for previously proposed projects and no listed species were found. In addition, NM has contracted for a two-season botanical survey to be conducted in 2021 by an expert botanist from Barr Engineering Company of Grand Rapids, Michigan (formerly King & MacGregor Environmental, Inc.) in order to ensure that current site conditions are documented.

Luttenton states further in paragraph two, *“A critical group of species to consider is spring and fall migratory bird species. Based on the location of the site and apparent habitat, it is reasonable to assume that the construction site is an import (sic) corridor for migratory birds.”* Although it is correct to assume that Great Lakes shoreline on a peninsula like the Leelanau Peninsula is a corridor for migratory birds, the impact on such migratory bird species from the construction of the proposed Timber Shores project is nearly impossible to quantify and would be limited to the impacts to migratory species caused by the removal of trees and other vegetation on the project site. Human disturbance is an unlikely factor due to the seasonality of the campground and most activity there will generally not coincide with spring and fall bird migrations.

Luttenton closes out his comments in paragraph two on page one by stating, *“It is also very likely that is site would support T/E/SC mammals, reptiles, and amphibians. Information from other biological surveys of properties in the same area as the campground provide addition (sic) insight into the species that may be or are very likely to be present near or within the construction area (Tables 2 and 3).”* Luttenton has apparently never been to the Timber Shores property and yet makes the conclusion that it is very likely that threatened, endangered, or special concern species of mammals, reptiles and amphibians are present at the project site. Further, he provides two tables in his report that list the species of mammals, birds, amphibians, and plants that were apparently recorded by Scharf on five parcels of Tribal Lands some distance south of the Timber Shores property conducted in 1987 (34 years ago). Tribal Lands are about four miles south of Timber Shores but Luttenton does not provide the location of the Scharf study. Tables 2 and 3 do not identify any species that are threatened, endangered, or special concern. At best, the Scharf reference is outdated, substantial distance from Timber Shores, and not pertinent to the evaluation of the Timber Shores project site.

To conclude page 1, Luttenton states, *“..The Watershed Center identified the area targeted for construction as an area of High Land Protection Value which indicates the site has substantial ecological value.”* In searching the Watershed Center website, I was unable to locate any references to lands designated as “High Land Protection Value” and for Luttenton to conclude that such lands have “substantial ecological value” lacks any basis or documentation. If in fact the Watershed Center has designated the Timber Shores property as having High Land Protection Value then that information should be made available and the basis for such designation of private property be made known as well as how the Watershed Center obtained the data to substantiate such a designation.

The Watershed Center does list as “Priority Areas” Riparian Corridors (1,000 feet in width) and Wetlands and Land within 1,000 feet of Wetlands. In its “Field Assessment of the Grand Traverse Bay Shoreline” dated March 2003 as part of the Grand Traverse Bay Watershed Planning Project the Watershed Center identified Pitcher’s thistle as the only endangered plant species present and no occurrences of Pitcher’s thistle were documented near the Timber Shores property.

Page 2.

Terrestrial Systems

Luttenton describes his analysis of the Timber Shores property using aerial imagery taken from Google Earth dated May 15, 2018. He correctly states that many of the campsites from the former Timber Shores Resort were constructed by filling wetlands and are still visible decades after the campground was in use. However his statement at the end of the first paragraph on page two, *“Given that these impacts are still visible even after the previous RV park has been closed for decades clearly indicate that this location is environmentally sensitive and susceptible to significant environmental degradation”* is totally without basis. The fact that the former campsite areas, roads, lagoons, and boat basin are still visible has nothing to do with the “environmental sensitivity” of the property no more than a cherry orchard or shoreline housing development indicate that a site is environmentally sensitive.

In the second paragraph Luttenton refers to the Google Earth imagery from May 30, 2015 (his Figure 3) showing several miles of Leelanau County that includes the Timber Shores property makes the statement, *“...the site has a relatively closed and continuous canopy formed by larger deciduous trees.”* He goes on to state, *“As a wildlife corridor, it is part of a continuous band of forest habitat (Fig. 3). Any activity that removes trees creating disconnections within the corridor or modifies the integrity of the corridor will negatively impact wildlife, particularly migratory species and nesting species.”*

Referring to the aerial imagery from his Figures 1 and 2 contradicts Luttenton’s statement that Figure 3 shows the *“site has a relatively closed and continuous canopy formed by larger deciduous trees.”* In fact, Figures 1 and 2 clearly show that the forest cover in the location of the former Timber Shores Resort is broken and does not have a *“closed and continuous canopy”*. Field investigation conducted on May 11, 2021 confirmed that there is much open or semi-open tree canopy on the Timber Shores property. A majority of the larger trees in many of the forested areas of Timber Shores are dead/dying ash trees and mature/over mature aspen trees. Due to the infestation of Emerald ash borer in recent years killing most ash trees, aerial imagery more than several years old may show more large ash trees than are presently there or ones that are still there are dead. This would lead one to believe that this site has more tree canopy than is present. The over mature aspen trees are also dead/dying. Large aspen trees need to be harvested prior to dying of old age.

As a result of the facts discussed above, Luttenton’s statement that any activity on this property that removes trees will negatively impact wildlife certainly does not apply to the entire Timber Shores project site. It has been stated by NM that tree removal will be limited to the extent possible in order to preserve the natural habitat and character of the property and to provide buffers from adjacent properties. Removal of trees that are hazardous to people will also be removed as necessary. Wildlife corridors are important but the removal of some trees and other development on the land for the project does not necessarily equate to significant impacts to wildlife species during seasonal migrations or daily movements. The residential development along the shoreline of Grand Traverse Bay north and south of the Timber Shores property

evident on Figures 1 and 2 has likely had impacts to wildlife habitat and movements; thus the habitat in the area is not pristine and wildlife species have adapted to the conditions present.

Plants.

Luttenton makes reference to a list of plants, birds, reptiles, amphibians, and mammals in the subsequent discussion of these categories of wildlife in his assessment that are listed by the Michigan Natural Features Inventory (MNFI) as threatened, endangered, or special concern for Leelanau, Benzie, and Grand Traverse Counties as shown in Table 1 of his assessment. The reasons for including Benzie and Grand Traverse counties in this list seems to be unnecessary due to the irrelevance of occurrences of T/E/SC species in those counties for the purpose of evaluating the Timber Shores property. The MNFI list of species for Leelanau County also does not mean that the Timber Shores property contains suitable habitat for all of the species on the MNFI list.

Luttenton also makes reference to the study by Scharf in 1987 on Tribal Lands *“just south of the construction site”* and provides a list of plant species identified by Scharf in Tables 2 and 3 of his report. The Scharf list does not identify any species as T/E/SC but is simply a list of plants found during the study some miles from the Timber Shores property and the usefulness of the list or its applicability to the Timber Shores project is not evident as previously explained.

It is important to note that NM has contracted for an experienced botanist to conduct a two-season plant survey in 2021 on the Timber Shores project site in order to verify whether or not any listed species of plants are present on the property. Results of that survey will be provided when available.

Page 3.

Birds.

As stated in the comments on the section on plants, Luttenton provides a list of bird species observed in Leelanau, Benzie, and Grand Traverse counties that are listed by MNFI as T/E/SC. The reference to the study done by Scharf in 1987 on Tribal Lands some miles away from the Timber Shores site would seem to be so outdated that its usefulness is questionable. The fact that many species of birds have apparently been documented in the vicinity of the project is not surprising although most species are migrating through the area on spring and fall migrations and do not nest in the area.

Of the birds listed by Luttenton in Table 1 of his assessment that have been documented in Leelanau County, none are likely to nest on the Timber Shores project site and have not been documented there. The following is an explanation of the species listed by Luttenton in regard to their habitat and likelihood of being found on the Timber Shores property.

Grasshopper sparrow (SC) is a species found in grasslands and prairies, which is a habitat type that is generally not impacted by the project.

American bittern (SC) is a bird of large cattail marshes and is a habitat type not found at Timber Shores.

Piping plover (E) apparently has been documented nesting on beaches in Leelanau County, but none in the vicinity of Timber Shores. The beaches adjacent to the residential development north and south of Timber Shores are unlikely nesting locations for Piping plovers due to disturbance by people and pets.

Trumpeter swan (T) and Common loon (T) are species that would primarily frequent the open waters of Grand Traverse Bay and would be largely unaffected by the proposed project. Trumpeter swans, if present, would be stopping during migration to more northern nesting areas such as Seney National Wildlife Refuge in the U.P.

Bald eagles (SC) may frequent the nearshore areas in seeking food but no known nest locations have been documented in the area of the proposed project.

Caspian terns (T) have apparently been documented nesting in one location in Leelanau County according to Luttenton but none on the Timber Shores property. Caspian terns are colony nesters and any such activity on Timber Shores would be very evident but none have been documented using the property.

The last species listed by Luttenton on his Table 1 that has been documented in Leelanau County is Prairie warbler (E). Prairie warblers inhabit second growth scrub and densely overgrown fields and are uncommon in Michigan and mostly inhabit the southeastern United States and, as such, are highly unlikely to be present at Timber Shores.

A site investigation was conducted by Charles Wolverton on May 11, 2021 and none of the bird species in the preceding paragraphs were present with the exception of a Common loon calling far out in Grand Traverse Bay. It is important to note that all pets will be required to be on a leash at all times in the Timber Shores campground as will be unlikely to disturb nesting birds or other wildlife.

Luttenton is correct in stating that the Leelanau peninsula is an important migratory route for birds. However, the impact of the Timber Shores project on migrating birds is extremely difficult to determine and is unlikely to have any measurable effect on bird species during migration.

Reptiles.

Again, the three-county listing is referenced by Luttenton, with only two species of reptiles from Leelanau County noted in his Table 1. Eastern box turtle (SC) and Smooth green snake (SC) are the only two reptile species listed and could potentially be present at or in the vicinity of the Timber Shores project. Whether the project would affect either of these species is almost impossible to discern. It is also likely that other species of reptiles are present on the project site, such as Garter snakes, Blue racers, and Painted turtles but again the impacts to reptiles is highly uncertain.

Page 4.

Amphibians.

Again Luttenton references the three-county list of amphibians in his Table 1, only two of which are listed for Leelanau County; Blanchard's cricket frog (T) and Pickerel frog (SC). These species of amphibians as well as other more common amphibian species could be present in the vicinity. The impacts of the proposed project on amphibians are almost impossible to determine but because most wetland habitat will be preserved impacts to amphibian will be minimal and should not be a major concern. Wetland acreage will actually be increased as a result of the mitigation for the proposed wetlands impacted and amphibian habitat will increase.

Mammals.

Again Luttenton references the three-county list of mammals in his Table 1, four of which are listed for Leelanau County. Woodland vole (SC), Little brown bat (SC), Northern long-eared bat (SC), and Northern flying squirrel (SC) are listed and could be present in the vicinity of the project but are not likely to be impacted to any important extent. White-nose syndrome is a disease that is dramatically affecting bat species in the U.S. and is the principal reason for these species of bats to be listed as Special Concern. Northern flying squirrels are nocturnal and their presence is very difficult to document but they could be present in the vicinity of the project.

Luttenton states in the mammal section that *"...snowshoe hare is a species that has begun to suffer population declines due to loss of habitat and a disconnection between fur color patterns and local climate conditions. A decrease in habitat in the local region will exacerbate declines in mammal populations such as snowshoe hare."* In fact, snowshoe hares are a game animal in Michigan with a designated hunting season. Although snowshoe hare populations are cyclic in nature due primarily to predator-prey interactions, it is not a species that is any danger of long-term decline. The habitat at the Timber Shores project site is generally not preferred habitat for snowshoe hares, which prefer coniferous forest such as pine forest and cedar swamps. The 53.44 acres of primarily cedar swamp wetland on the west side of M-22 that NM placed in a Conservation Easement granted to Leelanau Township as a component of the 2006 housing project is excellent snowshoe hare habitat.

Aquatic Systems.

Luttenton's primary point in his discussion regarding "aquatic systems" is stated as, *"The amount of surface area converted to hard surface and compacted stone will alter the local hydrology below the site."* There is little argument that "hard surface" changes the infiltration of water into the ground at the location of the hard surface (e.g. asphalt, concrete, pavers, etc.). The key point is this; does the altered runoff or infiltration *"alter the local hydrology below the site"*? In the subject case, the land in the project area is relatively flat and low-lying and adjacent to Grand Traverse Bay. The land to the west of the project site rises substantially in elevation as is primarily sandy and gravelly soil type which is likely the location of substantial groundwater recharge which flows toward Grand Traverse Bay. The groundwater in the Timber Shores location is near surface and connected to Grand Traverse Bay and will likely be largely

unaffected by the amount of hard surfaces proposed in the Timber Shores project. In other words, any changes to runoff infiltrating into the groundwater on the project site has very minimal likelihood of affecting groundwater levels because the groundwater is influenced to a much greater extent by the groundwater recharge in the lands to the west of M-22.

The hydrogeological study that will be conducted as part of the wastewater treatment system will provide more specific definition of the groundwater characteristics of the property. The Stormwater Management Plan for the project will also further detail the capture of runoff and locations designed to allow runoff to infiltrate into the soil on the property.

Wetlands.

The important fact to remember regarding wetlands is that less than one acre of wetland is proposed to be impacted by the construction of the Timber Shores project and over three acres of wetland will be restored on the project site resulting in a *net gain* of over two acres of wetlands. Luttenton correctly states that, “...*wetland mitigation will be accomplished primarily by reclaiming wetlands that were filled to create campsites when the site was previously a campground*” (meaning the original Timber Shores Resort).

Reclamation of wetlands that were previously filled is preferred by State and Federal regulatory agencies over creating new wetlands from uplands (i.e. lands that never were wetlands). Wetland restoration is accomplished by removal of the old fill down to the former grade of the wetland. If the hydrology of the land has not been impacted, in this case the groundwater level, then the restored wetland will soon develop wetland vegetation adapted to growth in the hydrologic regime of the site.

In the case of the proposed wetland restoration at Timber Shores, the wetlands to be restored are located within existing wetlands which provides the grade to be reestablished and the plants growing in the existing wetland will soon colonize the restored wetland.

Another beneficial factor of the proposed wetland mitigation at Timber Shores is that the restored wetlands will create larger wetlands which are ecologically preferred over smaller wetlands. This improves wildlife habitat for species that use these wetlands.

Luttenton states in the last paragraph on page 4 extending onto page 5, “*The proximity of wetlands to campsite/units will expose the wetlands to elevated levels of disturbance and possible impacts. During the construction phase, wetlands will be subject to increased dust and physical disturbance..*”. The use of uplands adjacent to wetlands is not regulated by State or Federal statutes. Impacts to regulated wetlands require a permit from these regulatory agencies and Timber Shores is making proper application for the proposed impacts to wetlands to the Department of Environment, Great Lakes, and Energy (EGLE). EGLE will decide whether the proposed impacts to wetlands meet the statutory criteria of the Natural Resources and Environmental Protection Act, 1994 Public Act 451 as amended.

Page 5.

In the first paragraph on page 5 of Luttenton's assessment he discusses the likelihood of soils that may be imported to be placed in the restored wetlands. His opinion on donor soils possibly containing unwanted seeds or rootstocks of undesirable, non-native or invasive species is correct and for that reason Timber Shores is not proposing to import soil to be placed in the restored wetlands. As stated earlier, wetlands will be restored by excavating the old fill down to the former wetland grade and importing soil will not be necessary.

In the last sentence of the first paragraph on page 5, Luttenton states, *"This loss likely cannot be offset by mitigation wetland because mitigation wetlands rarely function in the same way that natural wetlands do."* This statement may be correct in some instances, but the restoration of previously filled wetlands at Timber Shores has a high chance of success and after the restored wetland has time to vegetate and mature their form and functions will be indiscernible from the existing wetlands.

Lastly in the wetlands section of Luttenton's assessment he states, *"Adding nutrients via surface and groundwater flow may also impact wetland plant communities. Adding nutrients may drive plant communities toward monospecific stands of aggressive plants, particularly invasive species such as hybrid cattails or Phragmites."* This statement is correct in certain instances where excess nutrients are added to wetlands however this is not the case with the proposed Timber Shores project. There is minimal maintained turf grass proposed at Timber Shores and nutrient-laden runoff simply will not happen at this project so Luttenton's scenario is highly unlikely here.

Ennis Creek.

Luttenton makes a number of unsubstantiated or erroneous statements concerning the impact of the proposed Timber Shores project on Ennis Creek. Prior to addressing Luttenton's claims, it is important to reiterate that NM placed a 100-foot wide Conservation Easement (50 feet on each side of the creek) as part of the mitigation plan for its proposed housing development that was approved by Leelanau Township and what was then the Michigan Department of Environmental Quality in 2006. The Conservation Easement spanned from M-22 to Camp Haven Road on property then owned by NM and was granted to Leelanau Township. The purpose of the Conservation Easement was to protect Ennis Creek from direct and indirect impacts from the proposed development.

Luttenton states in his first paragraph under the Ennis Creek section of his assessment, *"...altered surface features including the removal of vegetation and the addition of hard impermeable surfaces and compacted surfaces will impact the hydrology of Ennis Creek."* This statement of definite harm to Ennis Creek to be caused by the project is without factual basis and is total worst-case speculation. Streams can be classified as "gaining" or "losing" streams when it comes to interactions with groundwater. A "gaining" stream receives water from the groundwater which contributes to its "base flow". A "losing" stream actually contributes water to the groundwater. Portions of streams can be "gaining" and portions can be "losing" in regard to the groundwater. For Luttenton to state that Ennis Creek will be impacted by the relatively

minor amount of campground development that is proposed near the protected stream corridor is not based on any hydrologic data regarding Ennis Creek or the adjacent riparian corridor and is highly unlikely to occur.

Ennis Creek has its headwaters in the 53.44-acre forested wetland west of M-22; a wetland that was also placed in a perpetual Conservation Easement by NM when it owned that property during the 2006 project. That wetland, and the headwaters of Ennis Creek therein, is fed by groundwater that discharges in this wetland from areas of higher topography comprised of sand and gravel soils and gives Ennis Creek a stable base flow.

In the next paragraph on page 5, Luttenton opines about the management of stormwater on the project site. It must be noted that the proposed Timber Shores project will not discharge any stormwater into Ennis Creek, either directly or indirectly. In the following paragraph, Luttenton continues to speculate that surface runoff will be directed into Ennis Creek and describes the negative effects of such runoff on the creek. Again, none of this will happen because no surface runoff will be directed into Ennis Creek from the proposed project so Luttenton's discussion is moot.

In the last paragraph on page 5, Luttenton discusses nutrient loading and provides "historic data" (without providing a reference or source for such data) so determining the validity or relevance of such water quality data is difficult. He goes on to state that, "...*the addition of phosphate to local groundwater will result in impacts to the stream and adjoining wetlands*" and he goes on to state, "*An increase in phosphate to local groundwater will result in impacts to the stream and adjoining wetlands*" and further states, "...*will likely result in increased algal growth within Ennis Creek and ultimately at the Ennis Creek/Grand Traverse Bay confluence.*" Where all of this phosphate will come from is not defined by Luttenton (a golf course is not planned here) and if it is from the wastewater treatment plant there is discussion about that in the following main section of his assessment. The Timber Shores campground and recreation area will not have any measurable increase in phosphate levels because of the relatively small area of maintained turf grass and as a result the impacts predicted by Luttenton simply will not happen.

Page 6.

In his first paragraph on page 6 of his assessment, Luttenton discusses in generalities the impacts of algal growth on aquatic communities, which is generally accepted fact, but he continues to speculate that such algal growth will be manifest at Timber Shores, which is totally without basis in fact.

The second paragraph of Luttenton's assessment on page 6 begins with the statement, "*The south tributary that is considered a drainage ditch in the project plans is an important hydrologic feature because of its connection to Ennis Creek.*" The remainder this paragraph discusses all of the purported damages to Ennis Creek that are attributed to development in and around the "south tributary". All of this discussion in this paragraph is moot because the drainage ditch does not have a direct permanent connection to Ennis Creek. In addition, except for the main

access road crossing this drainage ditch, alteration or impacts to this ditch/stream are presently not proposed.

Wastewater Treatment.

Discussion regarding the proposed wastewater treatment system is premature at this point in time because an extensive amount of planning, studies, and engineering has to be completed as part of the detailed permitting process with the State of Michigan for such a facility. Several facts are known though; one being that the sewer line to the treatment plant from the campground will be directionally drilled under the Ennis Creek corridor and no impacts to the stream or adjacent land will result.

The water quality produced by the proposed treatment plant has been compared to a conventional septic system. It should be noted that the total nitrogen concentration discharged from a conventional septic tank is approximately 60mg/l, compared to approximated 2.5 mg/l for the proposed treatment system. Additionally, the natural attenuation of wastewater total nitrogen when applied to the subsurface disposal area soil must be considered.

Groundwater.

In this section at the bottom of page 6 and the top of page 7, Luttenton discusses water quality associated with septic systems and also makes a speculative comparison between a water quality situation at the Yuba Creek confluence with East Grand Traverse Bay and Ennis Creek/West Grand Traverse Bay.

First of all, comparing septic system effluent to the highly treated wastewater effluent from the proposed treatment plant is not an equivalent exercise and is misleading at best. Secondly, the situation at Yuba Creek has no bearing or meaningful comparison to the Timber Shores/Ennis Creek location.

Grand Traverse Bay.

In the section on Grand Traverse Bay, Luttenton attributes nutrient loading from the Timber Shores project to have dramatic negative effects on Grand Traverse Bay, including water quality degradation, fish habitat, including spawning habitat, and impacts on aquatic invertebrates. He also predicts sediment transported by Ennis Creek and the old marina basin, “...will likely cover nearshore fish spawning habitat”. The latter statement seems to ignore that fact that there is wave action and littoral currents that scour the bottom of the Bay on a daily basis and accumulation of sediment that would smother fish spawning habitat is nearly impossible.

The initially proposed recreation pods offshore in the Bay adjacent to the Timber Shores project were eliminated and are now proposed in the inland recreation pond due

to concerns about being located in the Bay, including visual impacts on neighboring properties.

Coastal Wetlands.

Pages 7 and 8.

There will be no impacts to any wetlands that may periodically be present in the Bay (depending on water levels of Grand Traverse Bay). The only offshore activities by guests at Timber Shores will be swimming and non-motorized watercraft. No alterations or construction is proposed below the Ordinary High Water Mark of Grand Traverse Bay.

Conclusions

Luttenton's conclusions at the bottom of page 8 of his assessment cannot be considered to be reasonable or based in facts as described in the response to his assessment provided in this document. There are too many errors, misplaced assumptions, and unsubstantiated findings in his assessment to support these conclusions. An objective analysis of the impacts of the proposed Timber Shores is necessary in order to make informed decisions on the merits of the project.

A review of the activities that are regulated by State of Michigan and Federal statutes will be performed by EGLE and possibly Corps of Engineers personnel after an Application for Permit is submitted to those agencies. The review by these agencies will be thorough and involve an objective analysis of the statutory criteria for determining whether a permit can be issued for the proposed activities, specifically stream crossings and wetland impacts. NM anticipates that a permit(s) will be issued for the proposed Timber Shores project due to the fact that the proposed activities are less than what was permitted during the 2006 project and mitigation of the proposed wetland impacts is significant and will result in a *net gain* of wetland resources on the property. In addition, the Ennis Creek Conservation Easement corridor and the Conservation Easement on the 53.44-acre exemplary wetland and Ennis Creek headwaters immediately west of M-22 conveyed by NM provide additional significant wetland and stream protection in perpetuity.

It is important to note that wetland impacts that were permitted in 2006 never occurred due to the shutdown of the project due to the nationwide housing/economic downturn but the Conservation Easements had already been granted to Leelanau Township. Therefore, the mitigation provided by those Conservation Easements should carry forward to provide mitigation for the presently proposed Timber Shores project.

Luttenton concludes in the second paragraph of his report "*...this project will or is very likely to cause ecological impacts to the terrestrial environment, stream habitat, wetlands, and the nearshore region of Grand Traverse Bay.*" This basis of this conclusion has been evaluated

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throughout this response to his assessment and the findings are that the statements made by Mr. Luttenton are generally without basis in fact.

Respectfully submitted by Charles L. Wolverton