To:

Director of Planning Kenneth Buckland Conservation Agent Dave Pichette Conservation Commission Chair Sandy Slavin From: Eric Lintala 15 Squirrel Island Road West Wareham, MA, 02576

Please include this letter as part of the public record concerning the Solar Array Project proposed for Fearing Hill Road at 91 and 101 Fearing Hill Road.

The Planning Board meeting on June 28th was enlightening. It was a moving experience to hear the many concerns from residences on Fearing Hill Road as to why this solar field should not go forward. This is not an argument against solar energy but it is where they have been allowed to place these structures are the main concern. The loop hole created allowing them to be built in residential neighborhoods was a major mistake. Being that the Zoning By-Laws govern the building and locations of solar energy generation facilities I would like to comment and address several issues in those By-Laws.

Page 45, Item 591. Purpose:

"To encourage the use of solar energy generation facilities"... At the present Wareham has 19 such facilities and several more waiting in the wings for approval. This is quite an acomplishment bringing clean energy business to our community. It is good for the production of clean eletricity and it brings stimulus money to our town. However that loop hole allowing them to be built in residential neighborhoods and on forested lands that has seen hundreds of acres of trees cut down, has left many residence upset, confused and wondering if this was such a good thing after all. Also stated "solar facilities that address public safty, Minimize Impacts on senic, natural and historic resourses of the town"... I do not believe that many of the solar fields that have been constructed have really considered exactly what Minimize Impact means. So let us not forget that The Massachusetts Department of Conservation and Recreation-Heritage Landscape Inventory Program-Wareham-Reconnaissance Report...clearly states and I quote "Ancient Indian Route-The ancient indian route through the Weweantic Watershed was also listed as a Significant Cultural Resource, which has not been well documented and is threatened by development"...It is well documented that indigenous tribes would seek the higher ground where they can observe over there

hunting and fishing grounds. The solar field would be built on the high ground overlooking the Weweantic Watershed. Has there been any request for an archaeological survey of this area? "to minimize impacts on senic, natural and historic resourses of the town"...This location where the solar field is going has all these things.

Page 46, Application For Site Plan Review: Item 593.4

"A stormwater management plan detailing the existing environmental and hydrological conditions of the site"... " for the protection of water quality and protection from flooding"... These are two major concerns for residense of Fairing Hill Road. First, these already exsist, issues with the flooding of basements and backyards that sometime become swamps and under normal rainy conditions. What happens when those hundreds of trees that get cut down on that sloping landscape of exposed glacial till with major amonts of water running down that slope and off those solar panels in all directions. Mr Shanahan is quoted in the Wareham Week, "that the company plans to to move some earth around the site to flatten it and create two earthen berms intended to midigate stormwater run off"... The measures seen in there proposal and determined by engineering standards to be adequate, many of us still question. And has there been done actual hydrological ground testing? Climate change is here. Any of the so called long term statistics of rainfall amounts that have been mentioned as proof of no excessive flooding should be thrown out the window. And what about protection of water quality? Many of us here have wells, and what gets washed off those panels after it rains? How and what are they treated with to protect them? How is the ground cover to be maintained? Mr Shanahan is quoted in the Wareham weekly "the land will still be a wildlife habitat because of the clearence under the fence and the seed mix they plan to use, which should create a meadow type environment under the solar field"... So how will this meadow type environment be maintained? Or is it maintenance free? From what ive seen its important to keep the areas under the panels free of any out of control growth. Some solar fields simply use chemicals to kill any growth, its eaiser and cheaper to maintain. If used how would this effect our drinking water and the nearby watershed? Some but few actually try mowing and use trimmers.

Item 593.5

"A description of the solar energy facility and the technical, economic and other reasons for the proposed location and design shall be prepared and signed by a registered professional engineer"... In reference to location and design and

prepared by a registered professional engineer, it brings into question weather there was any thought or concern as to the other solar field located off Squirrel Island Road but directly behind the residence on Fairing Hill Road. I would think that having two solar fields in close proximity should have been of some concern or question in the planning stage. One resident on Fairing Hill Road brought up this question at the planning board meeting on june 28th, stating that they will now be sandwiched between two solar fields. This was a main point of contention by the residence on Squirrel Island Road on a solar field proposal two years ago, a project Mr Shanahan was involved with and was not approved.

Under Design Standards:

Item 594.1

"Large ground-mounted solar energy facilities shall meet the following standards". #3 "The front yard depth (also same for both side yards) shall be in accordance with article 6 of the zoning by-law, provided, however, that where the lot abuts or is across the street from a residential district or residential development, the front yard setback for all structures including fencing and vegetated buffer shall not be less than 50 feet, and may be more, as determined at the sole discretion of the permit granting authority, depending on visibility of the facility because of the density of vegitation and/or topography"... It has been stated that the natural exsisting vegetation and trees will be an adequate visual barrier to the solar field. If you drive down Fairing Hill Road and observe, looking into the woods where the solar field will be, it is obvious that no 50 foot, 100 foot or even a 200 foot set back will be adequate to hide the solar field. There is low vegetation at ground level and only heavy vegetation in the tree tops. You can clearly see way back into the woods and where the landscape starts to rise. This also brings into consideration "Line of Site". It has been asked by the board that this be taken seriously and be fully investigated. My property on Squirrel Island Road Lies directly south, behind Julia and Philip Jackson on Fearing Hill, map 74-0-1005 and as well Lewis Demello who lives directly across from them on the north side of Fearing Hill, map 74-0-1006. The view from my back deck takes in the tree line directly behind the property of Lewis Demello. These trees will be cut down and replaced by solar panels moving up the slope to the ridge top. I can only imagine what the views will be like for the residences along Fairing Hill Road.

Item 594.2

"On site solar energy facilities shall meet the following standards" #5 "not permit the equipment to create excessive noise to abutters by installing inverters as far from abutting structures as feasible".

Item 594.3

"These additional design standards shall apply to all systems" #5 "Inverters and transformers shall be sited so as to minimize sound to residences"

#7 "Setbacks shall provide for adequate screening of noise and glare from abutting uses and structures. Techniques such as dense natural vegetated plantings, earthen berms or increased setbacks will be required, depending upon specific conditions"...We are told all necessary means will be employed to curtail any nuisance sound by installing inverters. At the last planning board meeting on june 28th a residence on Fairing Hill Road complained of the noise coming from the Squirrel Island Road Solar field which was directly behind her property. This solar field is also next to my property on Squirrel Island Road. I was completely surprised to discover that the past few years what I always thought was a strange sounding generator coming from a neighbor's property on the other side of the solar field was actually the equipment from the solar field itself. Sound is a factor.

Under criteria for special permit review and approval Item 596.2

"The zoning board of appeals shall also impose in addition to any applicable condition specified in this section, such conditions as it finds reasonably appropriate "To Safeguard The Neighborhood"...

We need to be better stewards of our neighborhoods and our natural landscapes for they are disappearing at an alarming rate. Mr Shanahan states his company, this solar field, wants to be and will be a good neighbor...To re-locate to a more appropriate location as suggested in the new proposed ammendment to subsection 594.1.1 of the by-laws, would be a good neighbor.