

I. OPENING

CALL TO ORDER: The Environmental Advisory Council meeting of Lower Saucon Township Council was called to order on Tuesday, January 12, 2010 at 7:01 P.M., at 3700 Old Philadelphia Pike, Bethlehem, PA, with Sandra Yerger, Chairman, presiding.

ROLL CALL: Members: Chairman, Sandra Yerger; Vice Chairman, Tom Maxfield; Hazem Hijazi, Allan Johnson, Laura Ray, Ted Beardsley, EAC Members; and Kevin Kochanski from Boucher & James.

Associate Members: Colin Guerra. Absent: Tom McCormick, Chiharu Tokura & Glenn Kaye.

Hellertown Liaison: Terry Boos.

Jr. EAC Member: Sara Cote

PLEDGE OF ALLEGIANCE

II. NEW BUSINESS

A. REORGANIZATION

Mrs. Yerger said we will need to nominate a Chairman, a Vice Chairman and a Secretary.

Chairman:

MOTION BY: Mr. Maxfield moved to nominate Sandy Yerger as Chairman to the EAC for 2010.

SECOND BY: Mr. Johnson

Mrs. Yerger asked if there were any other nominations? No one raised their hand.

ROLL CALL: 6-0

Vice Chairman:

MOTION BY: Mr. Johnson moved to nominate Tom Maxfield as Vice Chairman to the EAC for 2010.

SECOND BY: Mr. Hijazi

Mrs. Yerger asked if there were any other nominations? No one raised their hand.

ROLL CALL: 6-0

Secretary:

MOTION BY: Mr. Maxfield moved to nominate Laura Ray as Secretary to the EAC for 2010.

SECOND BY: Mrs. Yerger

Mrs. Yerger asked if there were any other nominations? No one raised their hand.

ROLL CALL: 6-0

B. GOALS AND PROJECTS FOR 2010

Mrs. Yerger said everyone received a copy of the goals and objectives from last year. Ms. Ray tried very hard to get someone to do a composting workshop from the conservation district and they were all booked up. Mr. Maxfield asked Ms. Ray if she could call them again and try to get us on a list even if it was this fall or next year.

Mrs. Yerger said No. 2, the Native Plant Garden, there was a lot done by the Girl Scout troop and they did a lot to clean it up. She thinks we should have it re-evaluated by Hans and see if it needs any additional enhancements. We may have a couple of Scouts that will come forward and will need projects, and they could probably continue that process. She will check with Hans. Hans does it as that's who we started with, but if Mr. Guerra wants to do it, feel free. He can jump in

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and do it if he wants to. Mr. Guerra said April or May would be better for him. Mr. Hijazi said he's supportive of it, but do we see any interest from people in the Township? Does anyone come to it? Mrs. Yerger said we have not been marketing it. We had the native plant sales in conjunction with it, but we've never utilized the native plant garden to say this is what it looks like, this is what it will look like in your garden. Ms. Ray said we should try to get information out to residents so they can see it. Mrs. Yerger said that was the ultimate goal in the beginning. The first year or two it didn't look like much. Mr. Beardsley suggested native plant garden promotion. Mr. Guerra said most people don't even know the Township has a native plant garden. Mrs. Yerger said she's sure they don't. We did do a native plant sale last year in conjunction with the Saucon Creek Watershed Association at the Farmer's Market. We did pretty good with it. Whatever proceeds were made on that, it went to the Watershed Association. She will talk to the Watershed Association and see if they are doing one in spring time, and she will get some dates. Mr. Boos said if there are any left over, the next day you could bring them to the Farmer's Market and sell them there. Mrs. Yerger said that's a good idea, we'll link the two of them together. Mr. Maxfield said we could try at the Farmer's Market to publicize the Native Plant Garden. We could have some pictures and directions to it. Mr. Boos said if someone could make a flyer the week before, they could set it out at the Farmer's Market, and then the residents will know there will be native plants for sale. The Farmer's Market doesn't charge anything for the booth since the EAC is non-profit. Mr. Maxfield said he thinks Keri has things on the computer that she could print out.

Mrs. Yerger said what she's hearing is Laura is going to be checking into the composting workshop, and we will do a native plant sale here in the spring in conjunction with promoting it at the Farmer's Market and promoting the Native Plant Garden. We'll do a double plant sale the day after each other depending on the dates, and she will talk to the Watershed Association.

Mrs. Yerger said No. 3, Electronic Recycling; we already have that in place for spring. She's assuming how well it goes, we will or will not organize one for the fall. Mr. Johnson said next Tuesday, the 19th, Lehigh Valley Computer group is going to have a man come in and talk about his company that does electronic recycling. If anyone is interested in going, he can send information out. Mr. Beardsley said Best Buy is taking some things, and now Radio Shack is starting to do the same thing. He will get some information from Radio Shack. Mr. Maxfield said a couple of year ago when we first started doing this, we had a list of opportunities in the valley, like recycling for air conditioners, whatever it was you wanted to recycle, we had an outlet for it. Maybe we should try to put something together like that and update it. Mr. Hijazi said he got rid of his refrigerator the other week. They were picking up old refrigerators, air conditioners, freezers and they pay you for them. He just did it at his house. He thinks it's still ongoing. Ms. Ray said they take it from you as long as you buy an energy efficient appliance. Mr. Johnson said the state passed a law requiring PPL to do a certain amount of things like that. It's an effort to use less electricity. Ms. Ray said to get the energy star appliances. Mr. Johnson said it's for customers to use less electricity, and thereby burn less coal. Mr. Hijazi said not all the appliances are as efficient. Mr. Beardsley said the deal from them is it's got to be running. Mr. Hijazi said they wouldn't take his refrigerator until he plugged it in. Mr. Johnson said you can get it for a whole heat pump system if you renew your heat pump system in your house. They give you more money than they do a refrigerator, maybe a couple hundred bucks. Mr. Hijazi said maybe a whole other item could be, have something about energy, solar power, wind, and talk about appliances and energy efficient homes. Mrs. Yerger said she knows that Solebury and a couple of other townships in Bucks County have some very defined incentives. Most of it is actually for commercial use, not so much geared for residential. If they use alternative energy sources in Solebury, they give them some kind of point system and incentive. She's not sure what they are, but we may want to look at them. Mr. Johnson said some EAC's have talked their municipal government into implementing energy efficient systems in their township halls and garages. Mrs. Yerger said we have an application in for a grant to do that here in Town Hall. Mr. Hijazi said maybe as one of our goals should be to educate the public or provide information that someone may not be aware of from the

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State or County. We have all heard about tax incentives for upgrading certain things in your house, like a \$15 tax rebate for insulation. Mrs. Yerger said she just got that for her insulated garage door. Mr. Hijazi said maybe we can have an outreach for people so they know about these things. Mrs. Yerger said did you want Laura Ray to put it on the website or do you want us to send post cards out. Mr. Maxfield said by the time you put something in the Township newsletter, it's old. He was thinking it would be great since we have an EAC website, why don't we treat a section of the website as a newsletter and we can even do what the Township does and send out some hard copies to certain areas of the township a couple times a year. We could do it bi-monthly. Mrs. Yerger asked Ms. Ray if she knew how many people visited the EAC website? Ms. Ray said yes, they get a lot of visitors, but she doesn't know the stats off the top of her head. Ms. Ray said we could write something up and have the Township send it out by email as they have a mailing list for residents. Mr. Kochanski said East Rockhill Township, over the last year, has developed an electronic newsletter. Instead of just sending out a paper copy every month, it goes on to the agenda and lists what the current topics are. It's not a very large document, maybe a page or page and a half, and there's links to the websites. Mrs. Yerger said we send our Township newsletter out only three times a year. We don't do it monthly. Mr. Kochanski said if you are looking for something specifically for this, in lieu of the website, you can look for something of that nature. Ms. Ray said maybe we could have an EAC newsletter. Mr. Maxfield said we have a budget for going to workshops, which we hardly ever use, maybe we can get someone from the Township to print out some hard copies. We always get the complaint that there are people in the Township who don't have service, and what the Township does is sends it out to certain areas. One time they send it to this area, and the next time to another area. He gets one out of three newsletters at his house. Mr. Johnson said someone has to create the content for the website. You can't expect the webmaster, Laura, to do that. Someone at this table has to do that. Mrs. Yerger said the Township newsletter is going out shortly, so if we want to compromise for this time and get some of those facts and figures, send it in and we can compile it. Mr. Maxfield said we can work on it on a step-to-step basis and start as a goal aiming towards a newsletter type situation on the website and eventually get to a point where we can print some out and send them out. Mr. Hijazi said we can't do that today, right now it's an objective. Mrs. Yerger said maybe what we can do so no one is under the gun to do this, we can craft a very short article to put into the Township newsletter for people to encourage them to visit the EAC website. Give them the email address and tell them to go there and we can put up a couple of new "Did You Know", Radio Shack, PPL kind of things and tell them to look for monthly updates. Make it an energy corner where it's this kind of information and easy and quick and you can direct them to a website where they can get the full information. Mr. Maxfield said eventually we might be able to get something where members of the EAC get to contribute by saying anyone who is interested, gets awarded a half of page on the website. For instance, Allan is interested in energy and he writes a bi-monthly column on energy. Maybe Colin wants to write on plants. Something like that where we can turn it into a newsletter with articles. That would be the ultimate goal. Mrs. Yerger said she'd like to get the ball rolling. How do we want to state this multi-level goal? Mr. Maxfield said there's a lot of different things we could do, why don't we say providing residents with environmental information. Mr. Maxfield said the Township has an email group. Ms. Ray said we could create something and just have the Township send it out for us. Mrs. Yerger said providing electronic media information on environmental issues. Mr. Maxfield said that would also remind people about recycling.

Mrs. Yerger said No. 5, Educational Programs with Saucon Creek Watershed Association. We sort of did one on that last Spring. She has been asked to do one for the Watershed Association again in March. If we would like to co-promote it, we could do that. She can bring the flyer in. If anyone has any additional ideas, the Watershed's meeting is this Thursday. She and Tom usually go. Terry and Allan are at the meeting also. Do we want to pursue this and see what we can come up with at Thursday's meeting? Mr. Johnson said sure. Mrs. Yerger said we will leave this goal on and see what we come back with.

Mrs. Yerger said No. 6, work with Township staff to compile and assess existing Township hydrology information relative to groundwater use and protection. She would like to leave this one on. It didn't happen, but she thinks we really need to leave it on. We need to get Council direction. We are going to have to pursue this through our consultants. It was indicated there was a lot of hydrology information that already exists as it was requested several times. It is an important issue. Allan brought it to the table last year. Mr. Maxfield said we were initially trying to establish a hydrogeology map of the watershed areas, so if we could get that, that would be great. Mrs. Yerger said that works hand in glove with No. 7 and would be part of the hydrological study, wells and ground water and recharge areas, so she'd like to leave No. 7 on the list also for 2010 which is work with Township staff to map existing wells and investigate well protection methods and landowner educational opportunities. Mr. Johnson said that's a good idea. Mr. Boos said would you also include in No. 6 or No. 7 as to location of the storm water detention ponds and that kind of thing. Mrs. Yerger said hydrology is ground water. It's not so much storm water. Mr. Johnson said do you want to locate all the wetlands? Mr. Maxfield said they are locating the exceptional value watersheds which are contiguous to the Saucon Creek, not the isolated ones. Mrs. Yerger said he's talking about detention basins. Mr. Johnson said not only detention basins, but things like springs, wetlands, detention basins, all the water type things in our Township that are not located. The way you can do that is with a GPS. Doesn't the Township have one? Mrs. Yerger said the Township has one. Mr. Johnson said can we take it out? Mr. Maxfield said Chris is the guy who does the GPS, nobody else does. It would be good to draw all that information together so we could have one source to go to. Mr. Kochanski said all that information is probably available through the GIS database you have and can be downloaded. You'd probably want to start there and develop a hydrology map. There's a lot of information with streams and wetlands. Mrs. Yerger said that's what we are told, we just don't see it. Mr. Kochanski said GIS is what we use when we develop comprehensive plans. You have to know of a specific resource and compare it to the map and then go out with the GPS and locate it. Mr. Maxfield said one of the things that has bothered him over the years is we don't have this kind of overall universal, comprehensive look at the way water travels through the Township. When we are dealing with something like the golf course, we know it ends up at the bottom of the hill somehow, but don't know exactly how it gets there and who is affected on the way down. If we don't have that catalog somewhere, the developer is going to say, that's not for me, and we have nothing to say. We need to know, on a larger scale, how water moves in the Township - whether it moves slowly through carbonate or whether it's barreling down the hillside. It goes here and ends up here. Mr. Hijazi said ground water table, hydrogeology, subsurface. Mr. Maxfield said we have lots of carbonate conditions, lots of soil conditions like bedrock which affect the way the water goes. Mr. Kochanski said the State is going to have more of a specialized report with surface types of features. Mr. Maxfield said potentially we need to get all of that together and it needs to go in the mix so we know what's going on. Mr. Johnson said that will add to the original goal he had for bringing up these groundwater studies which was to insure for when somebody wants to do a development there is sufficient water available for residential units. Mr. Hijazi said that is a State requirement. You need to get the permit before you install the well for more than one house. Mr. Johnson said for instance, at the golf course if the guy wants to build 50 houses, that is going to be 50 new wells drilled into the ground, is there enough water for that? The State doesn't cover individual houses, they only cover groups. Mr. Hijazi said what they typically do is get a hydro geologist that would do an assessment about how much the well can produce in that area. For individual wells, it doesn't. Mr. Johnson said when you buy a lot, you drill the well. Mr. Hijazi said if you don't get your water at 100 feet, you go to 200 feet, and if you don't get it at 200 feet, you go to 300 feet. Your risk is in the cost of installing the well. The problem occurs when someone has a relatively shallower well and there's a drought and the water table drops and they start having issues. Mr. Johnson said one township south of here, they built a development and once they started putting wells in and drawing water from the wells, now you have 50 people living there and drawing water, there wasn't enough water. People who lived around the development had trouble getting water. It's one thing to drill a well when you are building a house and do a test on it when you are the only

house around. It's something else when there are 50 houses there and they are sucking water out of the ground. As a Township, that would be our responsibility to make sure that when we say okay you can build 50 houses, ten years from now when everything is built, it will all work. Mrs. Yerger said she knows there are other Township's that had these problems. It is not a totally unrelated issue. Mr. Johnson said on the western side of the Township, everyone gets public water. On the other side of the Township which used to be very sparsely populated, everybody gets well water. Now it's not so sparsely populated anymore and they even are putting more houses over there. In the past, it wasn't a big issue, but now it's becoming a bigger issue. Mr. Maxfield said in a house like his, he has one bathroom and a 90 foot well. If a development was to go in next to his house and someone has a house with five bedrooms and three bathrooms, they may hit water at 100 feet and the flow may not be good enough to power that whole system, so they may go down to 200 feet. The next thing he knows is he has no water, or he has a lot less water. That is a good argument for limiting square footage on a house in a certain area to be friendly to your neighbors. Right now we don't address that kind of thing in our ordinance. Mr. Hijazis said that's a very good concern, but unless the well is industrial quality and the volumes you are pumping out are on a continuous basis, he hasn't seen it being a problem. Sometimes in seasons when there is drought, the water tables drop and if you have a shallow well, you are getting impacted, but he hasn't seen it just because you have multiple housing and each house has a well, that not necessarily the size of the house is, that affects residential. Mrs. Yerger said the problem they ran into in Doylestown was they put a lot of high density within the well, so they were drawing a lot of water in a small area and homes that had already been there since the 50's, they had no water. They were very upset that when they put these developments in, high density, they had no water in their wells, so it does happen. Mr. Petrie said there is no real ordinance to address that. Mrs. Yerger said the only way to establish that the Township ordinance is correct would be to have this hydrology study behind it so we know where we are talking about and what kind of potential impacts are there. It would justify the ordinance, so it is important to do this study. She knows a lot of townships in Northern Bucks have done them. She doesn't know why Nockamixon ran into problems, but there were areas that ran into problems. Mr. Kochanski said a lot of that is with the geology of the area. He's familiar with an ordinance, and he will check it when he gets back in the office. He has recollection of an ordinance for a project, for an individual well, if it was groundwater withdraw, if you were exceeding a certain amount of gallons per day, then you had to do a hydrological study, and that then didn't necessarily require the Township to do anything. In the beginning, it was where is the threshold at which we can manage, but that may not be in depth as the entire hydrological study for the whole Township whereby you start doing the yield we can start from, and if you are going to exceed that, it could start creating problems, so we are going to go back to the developer and see if they are going to provide the report. He will look the regulations as he remembers them being and provide it to Township staff. Mrs. Yerger said we will keep these two objectives in the forefront and accomplish them before the end of the year.

Mrs. Yerger said we've added No. 8 which is providing electronic media information on environmental issues to Township residents.

Mr. Johnson said one thing we all complain about is the toxic chemical recycling or pickup of hazardous waste. Mrs. Yerger said the county does it once or twice a year. Mr. Johnson said maybe we can promote it more often. Mrs. Yerger said make sure people are aware of it. Mr. Johnson said try to get the county to do it more often. Mrs. Yerger said we can try. Mr. Maxfield said he's going to the COG meeting tomorrow and the representative from the county will be there, so he'll speak to him and ask him about it. Mrs. Yerger said the county does it twice a year. Mr. Johnson said will we put down as No. 9 more frequent hazardous waste recycling collections during the year? Mrs. Yerger said we can ask them about it. It's very expensive. Mr. Maxfield said for our purposes our goal could be to promote the county to recycle so everyone knows about it. Mrs. Yerger said promote county recycling hazardous waste recycling collection and work more closely with county recycling efforts.

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The Goals and Objectives for 2010 are as follows:

1. Compost workshop
2. Promotion of Native Plant Garden
3. Promotion of Electronic Recycling
4. Native Plant Sale
5. Educational programs with Saucon Creek Watershed Association
6. Work with Township staff to compile and assess existing Township hydrology information relative to groundwater use and protection.
7. Work with Township staff to map existing wells and investigate well protection methods and landowner educational opportunities.
8. Provide electronic media information on environmental issues
9. Promote more frequent county recycling hazardous waste recycling collection with the county.

Five Year Goal

1. Establish Environmental Education Programs at Township parks.

MOTION BY: Mr. Beardsley moved to recommend the above 2010 EAC goals and objectives to be presented to Town Council for adoption.

SECOND BY: Ms. Ray

ROLL CALL: 6-0

Mrs. Yerger said she's going to skip over II C & D and go to III. Open Space Committee.

III. OPEN SPACE SUB-COMMITTEE

A. PROPERTY UPDATES

1. George Griffith – 1484 Concord Lane, Bethlehem, PA 18015 – 27 acres
2. Joseph & Corrine Kerecz – 1486 Concord Lane, Bethlehem, PA 18015 – 15 acres

Mr. Beardsley said 1. and 2. are new proposals from landowners that are interested. The properties are located near the Beethoven Waldheim club, so it's a new place for us to go. We really need to make contact with these people and schedule a site inspection. Mrs. Yerger said they were sent the preliminary applications and they did come back. Mr. Beardsley said it says on the chart, Township Liaison, T. Clemons? Mrs. Yerger said at the reorganization meeting last Monday, the Township Council voted that Terry Clemons will now be the Solicitor for all new open space projects. That is his area of expertise.

3. Bruce & Ginger Petrie

Mr. Beardsley said he met with Bruce and Ginger Petrie and Chris Garges. There is an 18 acre piece they want to withhold from the easement which would be where the barns and house is. If they sold the property in the future, there would be plenty of space for someone to do something with that, so he's ready to make a motion.

Mr. Johnson said it seems that Mr. & Mrs. Petrie had some reservations about timbering on their property. Mrs. Yerger said they sent the letter back and are fine with it. Mr. Johnson said he didn't see the letter. Mr. Beardsley said they are concerned about the timbering and the value of the timbering over the long term, to the value of the conservation easement, but we aren't going to know the answer to that question until we get an appraisal. They are saying for purposes of moving forward, they are okay if they don't timber it as long as they

get enough money for the property. Mrs. Yerger said that will depend on the appraisal. Mr. Beardsley said he suggested to them about getting their own appraisal. Maybe they need an appraisal of the value of the timber. Mrs. Yerger said that's really hard to do. Mr. Boos said he could do that for Mr. Petrie. Mrs. Yerger said that's up to the Petrie's to do that. Mr. Beardsley said when we buy a conservation easement, one of the major things we are buying is the timber. Mrs. Yerger said on this particular property. Mr. Beardsley said getting an appraisal for timbering may be a whole lot more expensive. Mrs. Yerger said that's something the Petrie's have to pursue. Mr. Johnson said what letter is it that has the statement on it that the Township does not go along with commercial timbering? This letter the Petrie's returned doesn't have it on? Mrs. Yerger said it's a separate letter and it happened after we got that letter back. Mrs. Palik showed Mr. Johnson the letter that was sent out to the Petrie's with the timbering statement in it and the Petrie's response. Mr. Johnson looked at the letter and said okay. Now in the future, every individual isn't going to get a letter like this, it will be written on the form? Mrs. Yerger said right, they had an old form before the policy was enacted.

- MOTION BY:** Mr. Beardsley moved to recommend to Township Council that they move ahead with ordering the appraisal for the Petrie property.
- SECOND BY:** Mr. Maxfield
- ROLL CALL:** 6-0

Mrs. Yerger told Mr. Petrie the Township will be in touch with you. They usually use Indian Valley Appraisal Company. It will go to Council next week. If they approve it, then you will get a phone call directly.

Mr. Johnson said in the "Preliminary Application for Open Space Program", a word is spelled wrong, it has "access" and it should be "assess". Mrs. Palik said she will get the word corrected on the application.

Mr. Beardsley said on the Griffith application, it says George Robert Griffith, but he goes by Bob Griffith. If you are going to put down one name, put down Bob Griffith so no one gets confused. Mrs. Yerger said okay.

II. NEW BUSINESS

C. RECOMMENDATIONS FROM EAC ON GEOTHERMAL HEATING SYSTEMS

Mrs. Yerger said do we have any recommendations on geothermal? Mr. Maxfield said there were a lot of things that were kicked back and forth. One of the things that made no sense to him at all was the setbacks that we talked about, especially when we are allowed to have sand mound setbacks ten feet from a property line. He doesn't know why they would say you can't put geothermal ten feet from a property line. It's just putting a pipe in the ground. It's not anywhere near as massive as a sand mound would be. He would like to recommend a change on setbacks. Mrs. Yerger said we are looking at recommendations on geothermal. We are looking on discussions on solar, wind energy, all types of alternative energy, which is great. Is it easier to do these independently, or incorporate them in the existing ordinances or modify existing ordinances or is it easier to do this alternative energy package of ordinances? Mr. Kochanski said he thinks the geothermal since it's an existing ordinance, you would look at amending that separately from your wind and solar. You would probably want to do your wind and solar, whether it's one amendment that includes both of those, or depending how much you want to get in depth with those ordinances, you may want to handle them separately or as one lump ordinance. The Zoning Ordinance does now address solar separately from wind. Mrs. Yerger said that's a good overview and she wanted to get a handle on it. She agrees with Mr. Maxfield and thinks setbacks needs to be revisited with

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geothermal if we are going to do this by itself. We can make a recommendation to have our consultants revisit the geothermal ordinance and draft a new one for specific setbacks that we have a concern with.

Mr. Maxfield said Laura's consultant had mentioned something in the ordinance talking about laying the pipe in sand and that really was not the method. Ms. Ray said that was one of the things he suggested. It doesn't say you have to. Mr. Maxfield said he came right out and said he'd guarantee your system wouldn't work if you used sand. It might have to do with support. Mr. Kochanski said he thinks he was talking about the heat conduction from sand. It doesn't properly allow heat conduction. Mr. Maxfield said maybe we need to look at that also - the bedding material. Mr. Johnson said look at it from a heat transfer point in addition to a protection of the pipe viewpoint. He said Hanover mentioned that the ordinance allowed using a pond which they call open something or other as a heat source yet in the ordinance there was no other mention of regulations, requirements or restrictions having to do with them. If you want to allow that, you should have something in there about it. Mrs. Yerger said yes, how to regulate it.

Mr. Hijazi said he would say his comment is general in nature. The purpose of what Laura brought to our attention, we should not be too restrictive, as long as we want to regulate, promote the use and not over regulate the wind, solar and geothermal. Mr. Kochanski said you want to encourage the alternate forms of energy and not discourage through over deregulation. Mr. Maxfield said this is the only one that has potential for pollution. Mr. Kochanski said with wind, you could have noise pollution, and that type of nuisance. Ms. Ray said the pollution you are talking about is the poly glycol solution? Mr. Maxfield said the way it was spoken to was there was the potential, especially with the open system, of the poly glycol solution leaking and that potential freaked everyone out in the watershed protection area. Ms. Ray said that's a tough restriction. Mr. Hijazi said that's why we don't allow open loop with the pond. Mr. Kochanski said his understanding with the pond and open loop, it brings water in and discharges it out. In a pond situation, it's in essence like a closed loop system where it's 20 feet deep in a pond where the water temperature is stabilized, and it's still a closed loop. The coolant goes in through the pond through the piping, cools down, and comes back in. Mr. Johnson said that would probably be the big advantage during the summer when you have air conditioning. In the wintertime, depending on the depth of the pond, the whole thing could freeze.

Mrs. Yerger said the other thing is that she and Mr. Maxfield are going to the PSATS conference in April and they have all these workshops. A good portion of the workshops that are going to be given are going to be on alternative energy and the regulations and ordinances and how other municipalities are successfully handling it, how other municipalities are not successfully handling it, and the do's and don'ts and the whole big broad picture, which she is going to attend. She almost hesitates to move too far forward with some of these. It would be a good information source. She asked our Manager if it would make any difference if the EAC made their decision in April as opposed to right now. He said it would not make much of a difference as there is nothing pending at the Township. Not that we don't want to address these situations, but there is nothing pending right now. Mr. Johnson said one of the things we have to come to grips with is the difference between how the ordinance would handle a residential situation and a commercial situation, for instance, a commercial wind farm or a commercial solar farm. He doesn't know if there would be a commercial heat pump thing, but maybe if you had a big commercial site, you could do it. Mrs. Yerger said she feels this is still a learning process as there is so much information out there. If we are going to do this, we should do it as accurately as possible. Mr. Johnson said it's very complex. There's a lot to it. He doesn't know how much we want to handle ourselves. Mrs. Yerger said that's why with the recommendation, she would really defer to the consultants on the geothermal. We do have concerns, so get them into the recommendations and make sure those concerns be at least looked at, addressed, or given answers to. Mr. Johnson said have you ever come across a consultant in this energy field, as the group Boucher & James, do they

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have an energy division? Mr. Kochanski said no. Mr. Johnson said have you come across a consultant who promotes himself in that area. Mr. Kochanski said the regulations that they developed, even for the wind energy where they created an ordinance for Doylestown Township, was based off of DEP and PSATS model ordinance where they put together your baseline of information and the Township Supervisors and Committees went through that and then added and subjected from that what they felt was appropriate for their community. That's probably what his recommendation would be. Take a look at what's already been created through the use of people that aren't necessarily in the industry, people from DEP and the State who have developed the models. See what you like and what's appropriate for you. You know what works in your community, somebody in Harrisburg doesn't. You take those models and say it's good, but if we tweak this a little bit, it's going to be perfect for us. We did create that draft ordinance for solar, but did put some recommendations in from Bushkill Township.

Mr. Hijazi said he has a question about the consultants that are doing this. This is relatively becoming new. Before that, very few were working on solar with the oil embargo, people started to dabble with the solar energy, then it started to die when the oil price went down. All the consultants out there that are promoting their knowledge and expertise about solar is relatively new. Mr. Johnson said one of the things that concerned him with what Kevin supplied to the EAC already, is all the legal business that is involved. The State is promoting solar and wind and the State laws overrule the local laws and it sound we almost need a lawyer. Mr. Kochanski said that's what is nice at looking at the model ordinances as they've been developed by the State. They are coming from the State agency that is giving you a set of guidelines to build off of. That's why the models, they provided them not only for solar and wind, but for a lot of other different uses. If you look at PSATS website, you can find a lot of different types of model ordinances. That's pretty much how ordinances get developed through the regulations with the State. It's frequent in Bucks County where you can pick up a lot of different zoning ordinances and see regulations which are almost identical, but unique enough for that particular municipality. They look at the comprehensive plans and the direction that municipality wants to go. That's a good starting point. Mr. Johnson said what is PSATS? Mr. Kochanski said Pennsylvania State Association of Township Supervisors.

Mrs. Yerger said for the geothermal, what do we want to recommend? Ms. Ray said she has one about the restriction on the vertical system as well. Mrs. Yerger said she has "Consultants review on the ordinance - review setbacks, investigate pipe bedding material". Mr. Maxfield said Laura mentioned the vertical system, but our prohibition is in the watershed protection area. Ms. Ray said however, you can sink it into your well. Mr. Maxfield said in the watershed protection area? Ms. Ray said in other places where they make these systems, you can dig a well and put your geothermal in with your well, either closed or open loop system. Mr. Johnson said their problem is with the open loop system. Mr. Kochanski said if you are digging a vertical hole for a well, why you can't utilize the same hole and function for a vertical system. Mr. Maxfield said if we are talking about the possibility of a closed loop or open loop, it still has that potential to dump stuff back into the aquifer if there's a leak or a broken line. A well is simply drawing water out of an aquifer. You don't have that interchange, and that is his problem. Ms. Ray said it's fused pipes. Mr. Maxfield said they told us the same thing about the landfill and now they have a leaky pipe. Mr. Johnson said no mechanical system is perfect or functions forever without problems. Ms. Ray said this is where you are discouraging people from doing it. It's expensive anyway and if you could share it into your well, it would make it much easier and maybe you would need more facts on what are the failure rates on any of this. It's been around for quite a while now. Mr. Johnson said how are you going to collect that information? Homeowners aren't going to record it and provide it and the people who install the things aren't going to tell you anything bad that happened. It's one guys word against another, and the most safest way to do it is to not allow it at all. It's a matter of efficiency. That's what the installers are promoting. It's more dangerous to the environment, which side are we going to come down on and how do you get somebody else to

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make that decision for you. Ms. Ray said she doesn't see a difference if the pipe breaks in a horizontal position or vertical position. It'll eventually get to the same place. Mr. Johnson said it's not as direct of an injection. Ms. Ray said it's food grade glycol, that's the whole thing. Mr. Kochanski said it's water circulating around a coil that may contain the food grade glycol. Mr. Guerra said that would have to be one in a trillion chances of that getting contaminated. Mr. Johnson said people used to install copper piping all the time, now where we live, the acidic water in that part of the Township eats the copper pipe away and everybody has pin hole water problems in their pipe now. What's standard information doesn't always work in normal practice or in all situations.

Mrs. Yerger said revisiting setbacks were unanimous. Pipe bedding we're okay with that, as far as investigating it. Is there anything else? She will put Laura's vertical on hold for right now. Ms. Ray said look at open loops instead of just banning them. Mr. Johnson said how about the open ponds where you use a pond - the use of natural ponds, not detention ponds. Mrs. Yerger said we're back to the two recommendations from Laura. Mr. Johnson said he's not against investigating them. Go ahead, that is fine. When the facts are presented to us, then we can argue whether or not we agree or not. Mrs. Yerger said the pollution dangers of vertical systems. Mr. Maxfield said if we are going to do due diligence, the glycol, said relatively non-toxic. It didn't say totally non-toxic. We need to find out what that exactly is. When you hear poly, it almost sounds like plastic of some kind. Mr. Johnson said what about the liabilities if you pollute a neighbor's well, do we have to look into that? Mrs. Yerger said she doesn't know the answer to that. Mr. Maxfield said we were told one time if somebody puts in a well in a neighborhood and the neighbors well goes dry, that if it can be proven it's that well, that developer is responsible for to replace that persons well and drill him a new well or a deeper well. He would imagine this would be the same. Mr. Kochanski said you are getting into a legal question of liability of contaminating something. Mr. Hijazi said if contamination in the ground water is proved you caused it, there are fines and penalties under PA's environmental laws. The state will come after you. Mr. Johnson said can the state come after the Township if the Township ordinance allowed it? Mr. Hijazi said no, he doesn't think so. The state has a list of hazardous chemicals and the amount that could be present safely in the water. Poly glycol may not be listed, and therefore, it could be safe. Mr. Kochanski said with an underground system, it could be hard to detect. It's not like an oil spill on the surface where you can see what the source is. What is the amount of poly glycol in a system and if that were to all be released into the ground, what is the parts per million, there are a lot of questions there and a question of legality. Ms. Ray said you are supposed to dilute it 25%. Mr. Johnson said it opens up a whole can of issues and maybe that's why previously you didn't want to go into those issues. Mrs. Yerger said one of the things is who is going to monitor it. It's how are you going to track it until it becomes an issue. Ms. Ray said you'd have to call the police and report it, which is one of the silly things we talked about.

Mrs. Yerger said we are going to ask the consultants to review current ordinances and investigate setbacks, pipe bedding, use of natural ponds, the use of vertical systems and the potential dangers to the environmental, toxicity of poly glycol and groundwater, and vertical and open loop systems. Mr. Maxfield said the vertical systems are especially in the watershed protection areas. Mr. Kochanski said stand alone vertical systems versus vertical systems using a well as kind of a two use. That could be a difference in the carbonate geology area. Mrs. Yerger said Laura is the first case. She's not going to be a stand alone. Mr. Maxfield said if he was a home owner, he'd want the vertical type system. If you do have a problem and need to repair, how are you going to repair it. That's a lot different than going down 90 feet. Ms. Ray said she has to dig up 80 foot long trenches, five feet deep to get to her pipes.

MOTION BY: Mr. Maxfield moved to ask Council to direct the Consultants for this review.
SECOND BY: Ms. Ray
ROLL CALL: 6-0

D. DISCUSSION ON SOLAR ENERGY REGULATIONS

Mrs. Yerger said this was a lot, but she personally would not mind having another month to go through all of the information before we go on to make recommendations. She would be very happy if no one objects, to table it for now, and make no official recommendations. Let's let the consultants work on Geothermal and bring wind and solar back next month. Everyone go through the information and come with questions.

Mr. Kochanski said the other option you mentioned is the PSATS convention which is still two months away. Mrs. Yerger said that is two months away and there are a lot of regulations. She would like to see what's out there – what's working and what isn't working. Mr. Kochanski said what could happen after next month, when we have discussion on it, you may want to see a draft ordinance. You already have one for wind. You may want to see one for solar, and then by the time that's all done, and by the time you come back from PSATS, you're not having to start from ground one, you can modify the draft ordinance at that point. If you make that recommendation and Council approves us to draft a draft ordinances, it's going to be right around the time when the PSATS conference is. You can use the knowledge from PSATS to modify that and then right afterwards, you are able to adopt something than waiting until after that. Anything that comes in between now and then, you are dealing with current regulations. Mr. Johnson said talking about model ordinances, are we going to have model ordinances for large facilities and one for smaller facilities? Mr. Kochanski said you are looking at primary, which really aren't regulated now, as someone owns a ten acre parcel of land and they just put on one windmill or one solar panel, that's the principal use, so you want to have regulations for principal use and those as an accessory use. If it's a homeowner or a business, it would be accessory to the principal use. You do need to deal with those separately as they are two different types of uses. Mr. Maxfield said you could refer back to what we did with cell towers as a principal use.

Sara Cote, Jr. EAC member left. The time was 8:27 PM.

IV. DEVELOPER ITEMS

V. OLD/MISCELLANEOUS BUSINESS

A. REVIEW AND APPROVAL OF DECEMBER 1, 2009 MINUTES

Ms. Ray said page 4, line 12, good grade glycol, should be food grade glycol. Mr. Maxfield said page 12, line 19, he thought it should be "Divinci", but it should actually be "DaVinci".

MOTION BY: Mr. Maxfield moved for approval of the December 1, 2009 minutes, with corrections.
SECOND BY: Mr. Hijazi
ROLL CALL: 6-0

B. REVIEW OF DRAFT LANDOWNER ACQUISITION LETTER – MR. MCCORMICK

Tabled until next month.

VI. UPDATES/REPORTS

- Mrs. Yerger said you received copies of some upcoming seminar/workshops. If you are interested, please contact the Township. There is some funding available for workshop attendance. There is a Land Ethics Symposium. Mr. Johnson said what about the Natural Resource one held at the

Township? Mr. Maxfield said if you want to attend, ask Jack Cahalan to register you. The one at the Township is on February 10 and is being held by the Northampton County Conservation District, PA Dept. of Conservation & Natural Resources, Delaware & Lehigh National Heritage Corridor, and Lower Saucon Township. It is for municipal officials. Speakers will be Dr. Ann Rhoads, Dr. Timothy Block, and Morris Arboretum. They are trying to encourage all the municipalities around here so they can get a good overall kind of view what happens and apply those sort of things across boundary lines. It's on a Wednesday. The topic is Natural Resources Inventory. There will be a workshop at the end. The lunch is going to be fantastic. Mrs. Palik will email flyers to the EAC group.

- Mr. Maxfield said over at Seidersville Hall on the 30th, we are going to do another Saturday workshop with the Becahi students where we are going to build blue bird houses and bat houses and distribute them later on. If you want to come build, that's fine.
- Mr. Maxfield said he thinks in late February, there's going to be a workshop here again on climate change and its affect on native birds. There's a speaker coming from Northampton County Conservation District. He'll give you more information, via email.
- Mr. Johnson said they mentioned another seminar in Williamsport, and it has to do with drilling for gas. Mrs. Yerger said Marcellus Shale. Mr. Johnson said do we have any of that around here? Mrs. Yerger said Nockamixon is the closest that she's aware of. Mr. Johnson said then that's not really a concern to us. Mr. Hijazi said it's causing problems in some areas where drilling companies are polluting. Mr. Johnson said Mrs. Yerger sent out the email. She said yes, she did. It's the Coldwater Conference. It was sent to her and it's strictly on Marcellus Shale. There is one in Lycoming College and one at Penn State. Mr. Johnson said the night before the all day session at Lycoming College, they are going to have a speaker at Penn State at the college. Mrs. Yerger said she knows there is something at Penn State, click on both the sites and you can purchase tickets. Ms. Ray said she likes to put these things on the EAC website. Mrs. Yerger said there are groups that are definitely concerned about what's happening with the Marcellus Shale drilling in Lycoming and out west. This was sent to her by a friend from the Sierra Club. She didn't know if anyone was interested in it. She has a couple of friends who are really following this. If you want to see what is really going on, click on the Allegheny Forest.com and it will show you exactly what it looks like. It's pretty nasty stuff, acres and acres of our national forest. Mrs. Yerger said if you want to go to the Coldwater Conference, let her know. Mr. Johnson said it's only \$10, but it's in Williamsport. If we don't have that problem locally, we probably don't have to attend this conference.

VII. TERRY BOOS – HELLERTOWN REPRESENTATIVE – REPORT

- Mr. Boos said tonight at the Heller Homestead, there is a group trying to start to get a community garden program off the ground. It's pretty much just an organizational meeting this evening to kind of gauge how much interest there is, how many people would be interested in participating, and how many volunteers would be available to help organize and run it. They haven't decided on a site yet. They still have to approach the Borough yet on utilizing a site. There's some suggestion about utilizing the area just behind the Historical Society maintenance barn, just to the east of the Mill Race, back towards the first hedgerow. No matter which area they are going to utilize, they are planning on using raised beds, so theoretically, they could even do it on the parking lot at the Reinhard School area. They also talked about possibly next to the Hellertown Library. He personally thinks they should not do vegetables, but establish some sort of native plant plantings in all the pocket parks in town. Particularly if we can get somebody from the neighborhood to take ownership of each pocket park. This year, they will just try to get one gardening area established. He thinks eventually that it would be a great idea to try and create some sort of cafeteria garden at the school district. Whether it be on the immediate grounds for the students to have some of educational program or whether it would be between Polk Valley Run and Polk Valley Road, that they could re-establish the riparian buffer and utilize the additional area between that and the road rather than have it in corn. That would have to be approached by the school district. There are

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some ideas out there. Mrs. Yerger said access to water is usually your biggest factor. Mr. Boos said yes, you are right, and that is going to be the big thing. Mrs. Yerger said kids aren't in school usually when the crops are to be harvested. Mr. Boos said that may or may not be a problem. There are other schools that have had it or done this type of thing. Often the students get so into it that there's a handful that they just want to keep it going through the harvest. Mr. Guerra said there are about 55 high school ag programs in Pennsylvania. Students do come in the summertime. Mrs. Yerger said Heritage Conservancy actually established one down in Bristol, which is a very urbanized community. What they did was they did it at the school, but what happened, the way it was situated, there was an over 55 housing development next to the school, so they did it cooperatively. When the kids weren't there, the over 55 actually helped out with the gardening and kept it going.

- Mr. Boos said a letter was sent to Northampton County to employ them to maintain their open space funding, which they did not do. His own personal feeling is that we should try and put some coalition together between the Watershed groups, the sportsman's clubs, the EAC's, the school district and everybody else to create a situation where every month or whatever, somebody else is making a presentation to Council about the importance of having that funding. He doesn't know whether supposedly the ordinance was a voluntary type thing and if that is going to be the case, we need to implement a situation where it is absolutely dedicated and it cannot be raided. Mrs. Yerger said that was the open space plan with the get go and she has voiced that concern because of the way it was designed, it was a vote of confidence, it was not stipulated on how the fund is and how it is supposed to be placed in a separate fund for open space. They talked about \$34 million. They never put \$34 million in any fund for open space. That's what the voters said they wanted them to do, but there was never any mechanism in place. It wasn't a vote for a bond. It wasn't a vote for a tax. That's how they did it for seven years now. \$34 million just went away. What we could do is there is talk of a regional EAC meeting and we could contact them and maybe do a joint letter or joint recommendation for them to reinstate it. Mr. Maxfield said where we might be able to start that is through the Watershed Group and County Conservation as they are trying to organize on the 3rd Thursdays in March, a meeting of all the regional EAC's within the Saucon Creek Watershed area. That might be a place where you have multiple EAC's together and start there. Mr. Boos said maybe we could try to attempt to get the school districts, particularly the suburban districts, to get somebody from their local watershed group come to Council and say by you not preserving this open space, you are raising our school district taxes. You are not raising our county taxes, but you are raising our municipal taxes because you are not doing your job. Maybe that's the club that will put some sense in it. He'd like to start getting organized for that. He's hoping by the end of the year they will reinstate those funds.
- Mrs. Yerger handed out the new calendar dates for meetings.
- Mrs. Yerger said if you want to attend any of these seminars just mentioned, please contact Leslie or Diane at the Township.

VIII. NON-AGENDA ITEMS - None

IX. ADJOURNMENT

MOTION BY: Mr. Hijazi moved for adjournment. The time was 8:50 PM.

SECOND BY: Mr. Beardsley

ROLL CALL: 6-0

Sandra Yerger, Chairman