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MEETING NOTICE

The next meeting of the Citizens Advisory Committee (CAC) for the Charles George Landfill Site will be held at 7:30 pm. Wednesday July 1, 1987. Please note the following changes:

- This meeting is three weeks from the last one
- We will be meeting at Fire Station #2 which is located on Lakeview Avenue. The station is a few buildings before the multi-service center (where we first began meeting) on the left hand side.

AGENDA

Status on MEPA - At the last meeting the group decided to organize under MEPA. For details on how to be involved in this process see the attached letter.

Sign Posting - After preliminary review of available data, EPA's consultant concluded that posting signs warning people not to consume fish from Flint Pond is not warranted and swimming in the area as well as dermal contact with the sediments does not pose a health threat. As a follow-up, EPA offered (and the group accepted) to have the toxicologist attend this next meeting (July 1st) to discuss his recommendation.

Up date of old business

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Citizens Advisory Committee
on CHARLES GEORGE LANDFILL
TYNGSBOROUGH, MA.

MINUTES OF MEETING #8
JULY 1, 1987

Members in attendance: (6) Richard Davis (Chairman), Artie Jackson, George Kalem, Tom McNamara, Fred Murphy, Augustus Skamarycz
EPA representative(s): Steven Farrick
DEQE representative(s): Dale Young
EOEA/MEPA representative(s): none
NMAC representative(s): Carol Leary
E.C. Jordan toxicologist: Brian Magee
State representative: Brian Cleven
Meeting convened: 7:45 PM
adjourned: 9:30 PM

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The Chairman presented a MEPA sign-up sheet to the CAC.
E.C. Jordan toxicologist: Brian Magee was present (by DEQE invite) to discuss the preliminary findings on the landfill air samples, and the Flint Pond and marsh sediment and water samples.

Tom asked if the CAC had formally contacted (via a letter) the Selectmen, Board of Health, and Conservation Commission regarding our efforts to become MEPA certified. He said he had spoken with several Town board members about this, and that he had indicated a MEPA Citizens Advisory Committee would be formed. Tom suggested sending a copy of the CAC's MEPA nomination letter to all the Town offices. The Chairman agreed to do this. Steve Farrick explained that the mailing list changes constantly, and he suggested Gus add to the list any names he wishes, and then tell him.

AIR SAMPLING—

The Chairman asked EPA site manager Steve Farrick to state his opinion about the June 5 letter he had sent to Steve explaining the CAC's serious dissatisfaction with the air sampling that was performed in April 1987.

Steve said he felt that as professional a job as possible had been done, and he and the E.C. Jordan people were comfortable that they had characterized the air emissions from the landfill site. He went on to say that if the CAC chose not to believe them (EPA and E.C. Jordan) or believed that there were qualifications to his statement, then that was the CAC's prerogative. He said the main point he wished to bring up was that even if there was a major health threat from the Charles George Landfill, there would be virtually no way to control it *until the cap is constructed*. Steve said that they (EPA and E.C. Jordan) had confirmed that there is an air emissions problem at the landfill by their air sampling efforts. He said he was disappointed that the person who attended the CAC's last meeting (probably referring to Liam Hogan and the 5-13 meeting) didn't answer our questions properly. Steve reiterated that he felt that the emissions at the landfill site had been adequately categorized and also the neighborhoods around the landfill.

Steve went on to explain that the emissions are coming out of *not just the landfill vents*, but fissures and cracks covering the 70 acre site. The Chairman said that he wished Steve had told us this *a long time ago*, and that he felt it was self-evident that there is an emissions problem at the site. This being the case, the Chairman went on to ask Steve if the air sampling study had been a waste of money, considering previous studies had indicated a problem at the landfill, and since nothing can be done to control the emissions

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until a cap is constructed. Steve agreed that you don't need to do a study to determine there is a problem, but to find out how large the problem is. This point of the study, he said, was to determine quantities of specific substances coming out of the landfill so that EPA can pick the best option for controlling and/or treating the emissions.

The Media Investigation report, which explains the data collected, is due out in August 1987 and the Feasibility Study report, which will discuss the options for site cleanup, is scheduled to be out in October 1987.

Gus read a statement to Steve from page 15 of the Final Draft of the Community Relations Plan which stated that the "level of airborne contaminants detected at the site did not present a significant human health hazard." Gus asked if this were so, why was Steve now saying there is a big problem.

Steve answered that the report was mentioning concerns, and it did not go into details beyond that. He stated he was not entirely satisfied with every aspect of the air sampling, but that he still felt it was useful and served it's primary purpose.

ARSENIC GAS QUESTION—

The Chairman asked that since sufficient levels of arsenic have been found in and around the site, wouldn't one expect *arsine* gas to be present, and if so, why hasn't *arsine* gas been tested for. He asked that a specific answer be given at this meeting, and said he was disappointed that Steve didn't send a written response to the June 5 letter, and that it took (5) weeks for the first response, and there was no second response. The Chairman stressed that he wanted to go on record as being disappointed with Steve's response time. He continued to say that he kept reading contradictions concerning *arsine* gas, and that he wondered if he was missing some information.

Steve replied that you cannot sample for the "entire array of chemicals in this world". He went on to say that the EPA has picked a list of 129 *priority pollutants* that they sample for. Since these are considered the worst pollutants, they are used as indicators; if they are present, there is a chance others are as well.

He said he didn't really believe that *arsine* gas is a problem at the site. At this point, Steve asked toxicologist Brian Magee to comment about *arsine* gas.

Brian explained that arsenic "cycles" through the environment, and that if the conditions were correct *arsine* gas could form. Tom asked Brian if he considered the air sampling done at the landfill to be statistically significant on a scientific basis. Tom clarified this to mean: does the sampling represent what really exists at the landfill for the gases tested? Brian said he thought the air sampling was statistically significant to show there was a problem on the particular days testing took place. He added that in his mind, the next question would be, what about other days, with other weather conditions? Tom asked Brian if he thought enough sites were sampled, and enough total samples were taken for him to be confident about how the emissions are affecting the neighborhoods surrounding the landfill. Brian said that he would have stopped the sampling project had he felt it was inadequate, and that he was satisfied that the sampling done was scientifically adequate.

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Steve said that the following substances were found coming out of the landfill vents: vinyl chloride, benzene, short-chained hydrocarbons, and toluene. He went on to say that air is the most difficult environmental media to sample because of constantly changing weather conditions. Tom asked Steve if the consultant that did the air sampling had been guided by an EPA document requiring statistically significant sampling, and if the consultant's report had been accepted. Steve said yes, guidelines were used and properly followed, but that he had not read the report yet, although he had spoken to Dale Mosher (from E.C.Jordan) and others and he believed that they (E.C.Jordan) were "on the right track". The report has not yet been accepted. Tom asked if the EPA had made available to the CAC a document describing the requirements of the air sampling project. Steve answered that the requirements are included in the Work Plan. Steve added he believed the EPA will accept the final report from E.C.Jordan on the air sampling project. He said that they (EPA/E.C.Jordan) had identified a problem at the landfill, they hadn't found a risk to the people in the surrounding area, but there is enough of a *potential risk* to put up a cap to control it. Artie said it bothered him that the results say that *offsite* there is no problem. He was concerned that when it comes time to *treat the emissions* after the cap is in place, people will believe there is no need to spend the extra money to do so. He felt that if continuous air monitoring were done (not just during one untypical rainy period) it might help to get the extra work done when it comes time to treat the gases. He added that he felt the gas emissions problem is important enough to warrant the extra cost of a couple of air monitors. Steve stated that EPA requirements are rather costly, and that the previous air sampling project probably cost around \$50K. Steve said that regarding the point about "not enough data to show that there is an impact offsite", he felt that the data taken thus far is sufficient to show there is a *potential risk* to human health, and that this is the criteria used for cleaning up the gases at the site.

Fred asked if continuous air monitoring was a part of the cap plan. Steve replied that monitoring will be done for *worker safety, while the cap is being installed*. Steve added that his priorities are getting the funding for the cap, and getting the cap on. Fred asked if the cap would have gone on quicker if the air monitoring had found more hazardous substances. Steve replied that it wouldn't have made a difference; the cap project is progressing as quickly as it's going to and that the cap will not be in place until at least January 1988.

The Chairman asked Dale how the land acquisition around the landfill was progressing. The Georges are in negotiations, along with other abutters to the landfill. Dale said she couldn't comment on the negotiations, but that they are proceeding as quickly as possible, although slowly. Tom asked if the DEQE had approached the Town about the Town's taking the land by eminent domain. Dale answered yes, but the Town did not want to take the property. She added that the DEQE is trying to get the Georges to agree on land use restrictions that state that no activities can take place on the land. There are many options available: the Georges could hold the title to the land, but with land use restrictions, the Commonwealth of Massachusetts could take title, etc.. Steve said that there is \$20M sitting in an EPA bank account slated to be used for the cap construction, so there is a large reason to go forward with the land acquisition, and the EPA has to have clear legal access to the land before cap construction can begin.

Fred said he thought the land acquisition problems sounded like another holdout for another year, since he

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has seen this happen before with the landfill, but for other reasons. He told Steve he was afraid that if the \$20M isn't used in time for the cap construction, the money will be lost to another project. Steve said that there is a possibility that this might happen. Steve said he couldn't promise that the money would not be lost to another project, but that the EPA is working hard to prevent this from happening.

The Chairman asked what we (the CAC) could do to accelerate acquisition of the land, so that the \$20M is not lost. Dale said that there is nothing the CAC can do about the land issue. It is in the hands of the lawyers. The Chairman summarized the land acquisition discussion for Carol, since she had arrived at this point. Tom agreed with Dale, and stated he felt there was nothing the CAC could do to speed up the process at this point. Dale mentioned that Charles George is liable for the cost of the cap, so she doubts he will make any profits off the sale of his land. The DEQE is responsible for obtaining access and property interests. This can be done by land use restrictions, acquiring title through compensation, or taking the land through eminent domain (either by the DEQE or the EPA). This is the first case where the DEQE is faced with taking title to property for a hazardous waste site, and this is why the acquisition is taking so long. Steve said that appraisals have been done on all the properties necessary to acquire. He explained that fair-market value is being offered. If the owners do not accept the price offered, the land is taken through eminent domain. Tom was concerned that since the State renewed licenses for the landfill, the owners could use this point to their advantage, and thus cause the proceedings to drag on. Dale said that she was willing to have someone from the DEQE speak with the CAC about the land issues at a future meeting. The Chairman said he would make this a priority. Carol asked Dale who she should contact at the DEQE about the land issue, and Dale said she could contact her and she would direct her to the proper people.

The Chairman summarized the air monitoring issue for Carol and the group. He said that he didn't want to say we were misled, but that we may have misconstrued the intent of the air testing. He added that our opinions were solicited on where to place the air monitors, and that the monitors were not placed there. He felt that many points were not addressed, and the point was that he felt we were led down the garden path on what the testing was about. Carol added that if the CAC's input is not paid attention to, there is no point in having a CAC. Steve asked for a chance to respond to Carol's comment, and the Chairmen's views. He reiterated he felt the air sampling was scientifically valid, the objectives were to determine the amount and extent of contamination, and that he believed they achieved that goal. He said Dale and himself had made a very concerted effort to come to the meetings, and he felt he did listen to the CAC. He added that a great deal of thought had gone into the air sampling. Steve said that these projects are not ever clear cut regarding how many sampling sites are enough. He believed that the sites chosen achieved the EPA's objective. The Chairman said Steve contradicted himself regarding sites.

Regarding the air issue, Dale said she would ask the DEQEs people to look at the Remedial Investigation when it comes out, and to comment on it. The Chairman told her this would be much appreciated.

Gus reiterated his concern that the CAC should still have input on the landfill even after the cap construction begins. The Chairman said that the most important issue is to hold on to the \$20M, because if we lose it, we lose time.

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FLINT POND WARNING SIGNS---

Toxicologist Brian Magee from E.C. Jordan was introduced by Steve, who had also invited him. Brian said that some contaminants have been found in Flint Pond, and that he visited the Pond and the landfill to determine the likely exposure routes. He said the likely exposure routes are:

- o fish consumption
- o swimming
- o contact with sediment

Brian explained that the exact nature of these exposures is not known, so (2) "exposure scenarios" are created: a "worst case" scenario and a "most probable" scenario. The worst case scenario contains a very conservative set of assumptions, and supposes the worst exposure imaginable. Calculations are done on this scenario, and if there is no significant risk, then no more refined calculations are necessary. The most probable scenario involves calculating a body dose, and it is compared with acceptable intake levels from the EPA, the National Academy of Sciences, and other groups. Brian stated that within the (3) separate assessments (listed above), he found no risks that he considered significant to human health.

Steve added that the studies that Brian was referring to were a preliminary investigation prompted by the CAC's concerns about Flint Pond and because fishing season is underway, and that the studies will take place as part of the Remedial Investigation anyway. Carol said she felt the response should be to the people who live around the Pond and their children wading in the Pond, which she felt was a probable scenario. She said she didn't here concern about this. Brian asked Carol and the group to tell him if they felt his assumptions were correct, because they can be easily recalculated. Tom explained that the GCA Corp. did a previous study, and in November 1986, in a public meeting, told the public the fish was safe to eat. He asked why another study is being done if the EPA knew this in November. Steve explained that contaminants may be continuing to migrate from the landfill, and that further studies will check for this.

Brian said that the data that was assessed was from the NUS Corp. (1984 data) and new data collected in May 1985 by the DEQE. The NUS data sampled (17) fish and (2) turtles. The DEQE data sampled (5) fish composites. He again asked the CAC to comment if they felt his assumptions were incorrect. He assumed consumption of (8) ounces of fish per week from April through September for (20) years. He looked at cadmium, mercury, lead, copper, chromium and arsenic, and in all cases found that the levels were lower by from 10 to 15 lower than the acceptable level of daily consumption. Tom said he had seen in a report a level of (5) ppm copper in a perch, and asked why this is considered acceptable when the metal finishing industry is not allowed to discharge more than (2) ppm of copper into the sewer. He said that if the landfill were a metal finisher dumping these levels, the DEQE would fine them.

Brian said that the levels of contaminants found in the fish are about (50) or more times lower than the acceptable levels for human consumption. The scenario for swimming in the Pond was based on swimming (32) times a year for (10) years, assuming 50% of the water enters the skin at maximum concentration, and ingestion of 100ml of water per swim (with 100% ingestion). No significant health risk was found using this scenario. The contaminants of concern (studied by the previous contractor) were

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toluene, trichloroethylene and benzene. Brian checked their calculations (the previous contractor, and said that E.C. Jordan found none of these contaminants in the 1987 sample of Flint Pond. He said the Pond appears to actually be getting cleaner. He said this is not surprising, since the landfill is leaching less. The Marsh was studied using a scenario of (16) exposures to sediment per year for (10) years based on a child. No significant health risk was found. Fred told Brian that kids swim in the Pond sometimes twice a day, and not just the (32) times a year Brian had calculated. Brian agreed to recalculate using Fred's assumption. Samples were taken from various spots in the Pond. Fred asked if there was any difference in the water or sediment sample findings from previous findings. Brian answered yes, and Steve added that he felt there was no statistical difference because the difference was very small.

Tom asked Brian about chromium testing. He wanted to know why hexavalent chromium hadn't been tested for, since it is so dangerous. Brian explained that he is required to assume in his risk calculations that the sample is hexavalent. The actual sample is for total chromium. Therefore the risk assessment may actually be higher than it needs to be.

Tom said that the sign posting issue (Flint Pond and Marsh) has been going "around and around" since November (1986). He asked Brian if he felt comfortable with the data since the samples are different. Brian answered that all scientists prefer as many samples as possible, but if limited, the worst case contaminant levels are used.

Gus asked what the brown color in the Marsh was. Brian said it was probably iron, since the samples were very high in iron. Gus also asked what affect the trucks involved with cap construction will have on leachate transportation. Steve answered that as far as weight loading is concerned, the trucks will be at spots on the landfill that are about 100 feet high, so he felt there would be no problem.

Tom asked if the cap construction is the next step simply because removal of the wastes from the landfill is too expensive. Steve said yes, because the removal estimate is for \$1 Billion.

The Chairman stated that Agenda for the next meeting should include details of the cap construction, and the reasons for the type of cap considered. He suggested members read the documents concerning this. Steve added that the final version of the cap construction contract is ready for signatures.

Fred stated he felt that the most important thing was to get the cap in place, and that the air and water sampling issues were just used to sidetrack the citizens from the more important issue of cap construction.

Tom asked the Chairman about resolving the Flint Pond and Marsh warning sign issue. Tom stated that he felt it would be a very difficult decision for the CAC to make. He went on to say that the data was somewhat conflicting, and thought we couldn't contradict the EPA/DEQE without conclusive data of our own.

The Chairman said he thought the CAC tended to be pessimistic about the Pond, but that we (CAC) cannot put signs up. He said it was obvious the DEQE/EPA is not going to put signs up. He added that the Board of Health might have had some inputs, if they had been at the meeting. He summed up by

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saying he would like to keep the Flint Pond and Marsh warning sign posting issue open, although there will be no posting this season.

The Chairman asked Steve and Dale to cover the cap construction issue.

MEPA CERTIFICATION---

Tom said that he needs to know for certain if the CAC will be MEPA certified, because NMAC agreed to become involved only at the Selectmans formal request. He said he doesn't want to lose NMAC, as they could be helpful to us, and they only meet once a month, so we must signal our intentions quickly. The Chairman said he would follow up with MEPA, and that the closing date for "joining" MEPA is July 8.

AGENDA FOR NEXT MEETING: (July 22, 1987)

- o Dale will contact Erin about the Agenda items.
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- o

CONTINUING AGENDA:

- o Discussion of Community Relations Plan
- o Define Statement of Purpose
- o Discuss the Work Plan that Bernie, Elizabeth, and Nick created
- o Discuss funding options
- o Consider summarization of documents

The next meeting was scheduled for July 22, 7:30PM at the Tyngsborough Fire Station #2.

George Kalem III
secretary

OK: gk

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