

MINUTES OF THE MEETING OF THE BOARD OF
ROWAN COUNTY COMMISSIONERS
SPECIAL CALLED MEETING
JULY 7, 1988

The Board of Rowan County Commissioners met in a Special Called Meeting in the Community Building on July 7, 1988 at 10:00 a.m.

PRESENT: Richard D. Messinger, Chairman
J. Newton Cohen, Sr., Vice-Chairman
Wilborn Swaim, Member
George C. Knox, Member
Jamima P. DeMarcus, Member

The County Manager, Finance Director, County Attorney, and Clerk were also present as well as Engineering Consultants from Dewberry & Davis and concerned citizens of Rowan County.

Chairman Messinger called the meeting to order and Commissioner Knox gave the invocation.

Chairman Messinger noted to the guests that the Commission has received a letter of suitability on the White-McClamrock Site as a place for the Landfill. The Commission is now entering into the stage where they provide the State with an engineering design and a plan for operation of this landfill. He stated that the period of time is something in the area of three (3) to four (4) months to get the design and construction plan approved by the State and another period of three (3) to four (4) months to implement the construction plan. The Commission has requested the Engineering Consultants of Dewberry & Davis to present their recommendations, operation, and design of the landfill for this site.

PURCHASE OF BUILDING AT 110 W. INNES STREET FOR BRANCH POST OFFICE:

Chairman Messinger announced that the County has purchased the Office Building at 110 W. Innes Street as a new location for its Branch Post Office which is currently in the old Post Office Building. He stated that their long-term goal is to restore and utilize the Old Post Office Building as it is too expensive to operate just for a branch Post Office. Chairman Messinger reported that it would be approximately six (6) months before they actually move the Post Office operation to West Innes Street.

HISTORIC SALISBURY FOUNDATION--OCTOBER TOUR (MINGUS FARM):

Chairman Messinger read a letter addressed to Mr. Norvell, President of the Historic Salisbury Foundation as attached to these minutes.

UPDATE AND SUMMARY OF "SITE SUITABILITY LETTER" FROM STATE SOLID WASTE BRANCH:

Chairman Messinger then asked for a report from Mr. Gerald Horton of Dewberry and Davis. Mr. Horton noted three (3) things he would discuss:

- 1) Letter received from the Solid and Hazardous Waste Management Section of North Carolina Department of Human Resources. This letter, dated June 22, 1988, is referred to as the "Site Suitability Letter".
- 2) The design and the intent for the proposed landfill.
- 3) Implementation and Scheduling for the proposed landfill.

Mr. Horton stated that there are three (3) items of concern in this letter:

- 1) Per the State, the information submitted was adequate and a determination could be made that the site was suitable.
- 2) A Construction Plan was requested in this letter. The Construction Plan will lead into the permit for the landfill.
- 3) Certain conditions are set as the letter refers to regulations. Several items must be addressed. The letter also outlines certain conditions that will have to be met in the Construction Plan.

Mr. Horton stated that the meaning of the "Site Suitability Letter" is that the State Siting Criteria has been met for this particular site. This addresses several items such as:

- 1) Adequate distance from the airport
- 2) Adequate distance from surface water intake
- 3) Significant groundwater users
- 4) Favorable geological consideration
- 5) Deep bedrock and good structure as far as the rock underlying the site
- 6) Adequate soil both in quantity and in depth

This site has deep groundwater other than flood plain. The direction of the groundwater flow is favorable as the direction of the flow is towards the creek. The plan does not restrict the flow of the 100-year flood plain as designated in Second Creek. There are several other factors that were stated in the "Site Suitability Letter" such as this site not having any environmental constraints.

EXPLANATION & DISCUSSION OF NEXT PHASE - CONSTRUCTION PLAN:

Mr. Horton reported that the second part of this letter requests a Construction Plan. The State dictates how many sheets and what should be on each of the Construction Plan sheets. This generally identifies the topography of the land, the borings, and the profiles (characterized as the site).

The intentions also need to be identified as far as:

1. Where will the Extra Basin Depths be located?
2. Where will the Buffer Zones be located?
3. What will be the Monitoring Plan for Groundwater Detection?
4. What will be the Monitoring Standards?

Mr. Horton then stated that the last portion of the Construction Plan will show a phasing plan that will outline how the site will develop and where the direction of activity will go. Along with the Construction Plan will be a written narrative. The Commission will have a recommendation on the type of equipment necessary to operate the landfill. This part of the "Site Suitability Letter" states the conditions that will be imposed on the permit which will need to be included in the Construction Plan. There are four (4) general requirements:

1. Basal Liner--The landfill will have to be lined. In view of the pressing needs for Rowan County to obtain an operable landfill, Dewberry & Davis is recommending a synthetic liner for the first phase.
2. Final Cover--The intent is to keep storm water from entering the active and inactive bounding portions of the landfill. This will also prevent water from getting into the waste and becoming leachate. This is normally done by putting a mounded top over the landfill and an impervious cover to prevent the water from becoming leachate.
3. Leachate Collection System--Leachate has been the thrust of a lot of the State's concerns in their recent regulations as well as impending regulations in protection of groundwater. Therefore, emphasis has been placed on leachate collection. Part of the liner will include a leachate collection system, and the disposal of leachate will need to be addressed.
4. Groundwater Monitoring Plan--This plan should show where the groundwater monitoring wells will be.

Commissioner Swaim asked Mr. Horton that since these regulations are fairly new, could they apply to any site that was selected. Mr. Horton replied that the tradition has not been in North Carolina to line landfills. He stated that there are a couple

of lined landfills in North Carolina. The regulations that are in effect today are essentially very similar to what they were for the last two (2) years regarding groundwater protection. Mr. Horton stated that there are approximately twenty (20) or thirty (30) site criteria that are researched. Some are regulatory, some are economics, and some are practical. This proposed site is the best site in Rowan County because it met more of the criteria than any other site as far as the conditions being favorable.

Mr. Horton stated that they are proposing to design a landfill on the site phased for five (5) years. The intent is to use the entire 360 acres (2 tracts) as well as providing buffer and screening and set aside portions of the site as dictated by the State's Requirements. The reason Dewberry and Davis is recommending a five-year plan is due to the uncertainty with the Federal Regulations as far as Solid Waste handling. Due to the County contesting the historical issue, Dewberry and Davis is recommending that the five-year plan address just the White tract.

Mr. Horton went on to discuss what the design would include. An assessment will be done on the basal liner as to what will be the most economical design. It may include a synthetic liner. These are factors that have to be evaluated in the design phase. The design will also include leachate collection. This will be a somewhat massive underground storm drainage collection system. He stated that they also intend to include a demolition waste landfill within this landfill plan in Phase I. The reason for this is that the demolition waste is different from sanitary waste. Such demolition waste is segregated as not to take up top dollar square footage floor space in the landfill. The design will also include roads and infrastructure, the operator's office, etc. He stated that Phase I design will be done by the area fill method. In other words, a large area will be constructed to bring in trash where it will be compacted and covered daily. He stated that the operation will be held in a concise and very discreet location. To have an efficient landfill, waste must be placed in as much of confined space as possible. The area fill method is simply dumping the waste, compacting it and putting a daily cover over it. Also, the design will provide for buffers, wind screening, and some landscaping. This will be both visual, and practical. The sanitary portion of the Landfill will be allotted for four (4) to five (5) years with a possible commitment on roughly fifteen (15) acres on the site. Demolition is excluded from this figure. In reply to Commissioner Cohen's concern, Mr. Horton stated that leachate can be collected and transported off the site for treatment through a contract arrangement. It can be taken to a sewage plant if suitable capacity exists if compatible treatment can be demonstrated and if agreements can be made as well as financing arrangements.

LEACHATE COLLECTION SYSTEM AND FUTURE SPECIFICATIONS OF THE LANDFILL:

Leachate can also be treated on the site. There are various options to this:

1. It can be neutralized and then treated (neutralization is a type of treatment).
2. A long-term holding and a discharge permit would have to be acquired if it is discharged through the surface waters.

Mr. Horton stated that a leachate collection system is a collection from under each cell. The infrastructure will have to be built to the future specifications of the landfill. Mr. Horton stated that calculations for deriving at fifteen (15) acres to achieve a four (4) to five (5) year plan was based on the following:

1. Waste generation rate in Rowan County
2. Projected increase in Solid Waste generation
3. Previous experience shown as far as the amount of soil available on the site
4. How high to construct the cell

SYNTHETIC LINERS vs. NATURAL LINERS:

Mr. Horton stated that a non-synthetic liner is an option that should be kept open. There will be a need to look at finding suitable natural clays in the vicinity as well to make the landfill economically practical. However, the State does not dictate that a synthetic liner be used. With a natural liner, the soils would have to be modified or suitable, impermeable clays would have to be located. These are equally viable options as far as a base liner for the landfill. It is being recommended by Dewberry and Davis to use a synthetic liner for the initial four (4) to five (5) year landfill. The reason that this is being recommended is because finding suitable clays would require geological and soil boring expenses to be incurred.

Commissioner DeMarcus asked Mr. Horton what the longest time he was aware of someone using synthetic liners that have lasted. Mr. Horton replied that the technology has been used for about ten (10) to fifteen (15) years. There has not been much of an emphasis for synthetic liners in the South because more land is available as well as the population versus the North where synthetic liners are principally used such as New Jersey and Delaware. Mr. Horton assured the Commission that a synthetic liner is the safest at this point.

Mr. Frank Stevenson, Dewberry and Davis, reported that synthetic liners have been used in sewage lagoons for at least twenty (20) to thirty (30) years. He stated that sewage lagoons have been lined for waste treatment for many years but synthetic liners have never been used for landfills because they were so expensive. Synthetic liners have been used for many years and should be very safe due to the fact that they have been exposed to acids when used in sewage lagoons. Commissioner Cohen felt it would be to our advantage to find the correct quality of clay because it would make a better liner than the synthetic liner. Mr. Horton concurred and stated that a natural liner would not be subject to deterioration as it is a natural element. However, the natural liner's characteristics can change as anything would that is subjected to going into a landfill. This is why there is such an emphasis placed on synthetically lined landfills--not only are these lined on the bottom but the top as well. The purpose of the bottom liner is to keep the elements in and the top liner is to keep the elements out such as leachate. The top liner does not have to be synthetic--it can be of natural material.

BALING AND INCINERATION:

Commissioner Knox raised the concern of baling. Mr. Horton replied that baling would enhance the landfill. Enhancing the efficiency and operation of the landfill will take less volume; therefore, the life of the landfill will be extended. Baling is reported to create less potential for leachate generation because there is less water in the waste as well as less cover material. The State of North Carolina requires that solid waste be covered daily; however, some states may relax this requirement for baling operations which would generate less soil for daily cover operations. One of the limiting factors in most landfills in North Carolina (conventional or otherwise) is availability of soil. One of the reasons the State requires that the soil be deep is because there is more soil than land. This criteria has been met for the proposed site.

Chairman Messinger noted that a great deal of discussion regarding incineration has occurred as this would reduce the volume ten (10) to one (1) where baling reduces volume four (4) to one (1) generating an investment of approximately \$6 Million or \$7 Million. Incineration, however, would generate an investment of approximately \$25 Million or more. Mr. Horton indicated that it is prudent to look at all angles of the Solid Waste strategy because a landfill is just a recipient of whatever is generated. The County can only try to operate it more efficiently. There are things that have to be caused through Solid Waste Management Strategy to lessen the impact on the landfill and the life of the landfill such as baling, shredding, segregation of waste, recycling, and incineration. None

of these strategies alone will solve the solid waste problems in Rowan County--it must be a combination of all efforts.

RECOMMENDATIONS FROM DEWBERRY AND DAVIS:

Mr. Horton reported that they are still pursuing the approval for the entire tract with this phasing plan. Dewberry and Davis is recommending that the County stay involved in trying to pursue other avenues as far as Solid Waste Management Strategy. Although the County is into a recycling program, other things such as waste flow control need to be considered. The reason for this is when the landfill becomes active, the cost involved in this landfill will be more than the cost involved for Rowan County and the previous landfill. He stated that operating costs will have to be reviewed as well as tipping fees being assessed. Mr. Horton recommended that the County consider setting aside an escrow account for the future development stages of the landfill. This will enable the County to implement other phases of the landfill when needed.

REVIEW OF FUNDS ALLOCATED FOR LANDFILL DEVELOPMENT (FY88-89):

Chairman Messinger called on the County Manager to review with the Commission what funds have been set aside in the new budget for the landfill. Mr. Tim Russell, County Manager, stated that in the 1988-89 Budget the County appropriated \$650,000 for the purchase of land and implementation of the landfill. In 1987-88 Year Ending June 30, the County has set aside about \$500,000 for which the majority has been spent for the purchase of the land through the condemnation proceedings (approximately \$246,000), attorney fees, engineering costs to prepare the application, surveying costs, topography costs, acquisition of the new landfill, and other costs associated with the existing landfill in extending its life. Chairman Messinger reported that the County should have approximately \$700,000 in the budget available for land purchase. Anything over and above this would need to be applied to constructing the buildings, scales, roads, construction of the landfill, and further engineering fees. Mr. Russell indicated that the roads, scales, weighing station, entrance, etc. would have to be done immediately in addition to the first phase while other projects could be done as phases throughout the life of the landfill. If the first cell is approved then this gives the County landfill a life of approximately five (5) years and a cost that would be incurred on the front end. This cost could be extended through the life of the five-year period through financing or some other method. Mr. Russell stated that the tipping fees that the County has grown accustomed to in the last two (2) years have increased. The tipping fees that will be associated with a synthetically lined landfill is something that is yet to be explored. The tipping fees now being about \$5 or \$6 a ton would probably double or even triple as a result of the total cost of lining and operating a landfill excluding the purchase of the land which is really incidental to the lining cost. Mr. Russell indicated that an analysis would have to be done and the Commission could then make a decision based on what tipping fees will be assessed.

Mr. Horton stated that the cost for the landfill is up to \$100,000 per acre as he feels is a legitimate cost at this time. He stated that the Commission needs to make decisions on the following:

1. Will waste brought into the landfill be weighed?
2. Will an expenditure be made for a weigh station?

OTHER RECOMMENDATIONS FROM DEWBERRY AND DAVIS:

To obtain control as to what will be going into the landfill as well as how to distribute tipping fees equitably, Dewberry and Davis is recommending the County install a weigh station.

Through a County Ordinance, Waste Flow Control may be necessary to ensure that waste generated in this County is taken to the landfill for which Rowan County citizens have expended money to build. Mr. Horton stated that if it is cheaper to transport waste to another location, then this would also have to be addressed in the Ordinance.

Mr. Horton indicated four (4) broad tasks that may have the luxury of overlapping as well as some having to follow a previous task:

1. It was anticipated that the design would take eight (8) to ten (10) weeks.
2. Dewberry and Davis will be working closely with the State to ensure that they have the intentions of what the requirements are during this time. The State has assured Dewberry and Davis that this is a top priority as far as review, and review time is estimated at approximately four (4) weeks.

*These two (2) tasks will not overlap other than the interfacing and coordination with the State.

3. After the State review (or before the State review) and the final permit approval, it would be beneficial to the County to begin the project by developing the bid package. Dewberry and Davis is recommending that the initial phase of the landfill be put out for bids for contractors to construct because it takes specialized expertise to install the liners and some of the ditch trenching for subsurface piping that will be necessary. In order to spend public money over \$30,000 or \$50,000, projects must be contracted.
4. Dewberry and Davis is also recommending the County prepare a Construction Package which would consist of construction plans being submitted to the State only modified for contractor bidding. There will be specifications that would describe what has to be done as well as describe the quality in great detail. There will then be a bid proposal and an itemized bid proposal so that the bidders will be able to bid equally. The lowest bid would then be qualified. There may be a way of overlapping the State's requirement for construction; however, it is too soon to anticipate this. The State is reviewing the construction plan for issuance of a permit. If things go well, the County can begin advertising for the construction of the landfill. There is a 30-day requirement, however, that states that the County must advertise to receive the bids. There will be approximately one (1) week as far as analyzing the bids, making a recommendation, awarding, submitting a notice of award, and exchanging this information with the contractor.

Mr. Horton anticipated a construction period of about twelve (12) to fifteen (15) weeks. there will be a seven (7)-month period or thirty (30) weeks before the County will have beneficial use of the landfill.

OTHER AREAS OF CONCERN:

In response to Commissioner Knox's concern about the equipment at the present landfill, Mr. Horton replied that the County would still be operating the present landfill while the new one is under construction. Mr. Russell stated that the County does not have the capability of digging this type of construction. The present equipment will still be used at the present landfill operating during this period of time; therefore, the work at the new landfill would have to be contracted out. There are only a few firms in the State that qualify to do this type of construction for liners and leachate collections. Mr. Horton noted that the liner is the real specialty and the quality control on this is very critical. The installation of the liner would involve rolling it out and heat sealing it either chemically (glue-like substance) or mechanically.

REVIEW OF DECISIONS TO BE MADE BY THE COMMISSION THAT DEWBERRY & DAVIS NEED TO MOVE AHEAD ON:

- 1) Approval of the overall plan.
- 2) Approval of the short 15-acre plan (Phase I).
The buildings, scales, and roads develop into later phases. These are engineering decisions as far as the Commission resulting to Mr. Horton's judgement on how the landfill needs to operate.

According to Mr. Horton, baling is not anticipated as part of Phase I. Baling is not relevant to the landfill design unless the Commission chooses to commit to setting aside a certain portion of land to accommodate equipment for this project.

Mr. Horton stated one of his objectives to the Commission would be to retain the efforts towards the development of Phase I of the landfill as direct as possible and other issues can be addressed at a more appropriate time as they can be incorporated with the overall Solid Waste Strategy for Rowan County. Mr. Horton suggested keeping a focus on obtaining the landfill design, bid, and construction.

PUBLIC CONCERN:

Patricia Link, a member of RASA, stated that the County seems comfortable with the fact that this landfill must be synthetically lined. She then asked how long the County knew that this landfill had to be synthetically lined. Gerald Horton replied that the landfill does not have to be synthetically lined--it has to be lined as dictated by the State. He stated that a synthetic liner refers to plastic material. A modified line of natural soils is also a liner. Chairman Messinger then replied that natural liners have

always been an option and if there was a good supply of clay that would be suitable for lining, this would be an option. She then asked if the Commission thought the clay was there and if this is what they were after. Mr. Horton replied that there are so many site criteria when looking for a suitable landfill site--there is not one overriding criteria that states the site will be good or bad.

Patricia Link then requested to know why these sites are favorable. Chairman Messinger replied that Dewberry & Davis gave the County a very complete report which was given to the press and given to certain people in her group that set forth the entire siting reasons.

Patricia Link stated that her group is opposed to incineration and should the Commission ever deem it possible to go to incineration, the public would want to be a part of the process. Chairman Messinger replied that once the new landfill is underway and a permit is issued, it is the Commission's intent to appoint a public body or public committee that will consider the entire waste problem in Rowan County dealing with what is done after this four (4) to five (5) year plan (Phase I). If the County had to raise \$6 Million for a Baling operation or \$25 Million for Incineration, public support would need to be provided as this becomes a bond issue. Bond issues cannot pass without public support.

Alfred Wilson, citizen of Rowan County, asked the Commission how far ahead is the conception of the design with what is available now. Chairman Messinger replied that they are looking at Phase I plan for approximately 15 acres which would take four (4) to five (5) years. Once this is started, they will then enter into a study with the Public Committee. Mr. Wilson then asked if the Commission had a broad conceptual plan showing how Phase I fits into the end product or the completed plan. Chairman Messinger replied that when given Phase I, the approximate location of Phases 2, 3, 4, and 5 will be provided because a road will need to be installed in one of the phases. Also, handling of a leachate collection from one phase must fit in with those of later phases. The Commission is interested in Phase I coordinating with some of the later phases; however, at this point, they do not know how much detail they will do in the later phases.

EXECUTIVE SESSION:

After a short break, Commissioner Swaim made a motion to go into Executive Session for the purpose of discussing Personnel Matters as well as Landfill Issues. Commissioner DeMarcus seconded with unanimous approval. Commissioner Cohen made a motion to come out of Executive Session and Commissioner Knox seconded with

unanimous approval. This Special Called Meeting Session was adjourned at 11:15 a.m.

Respectfully submitted,

Wendy S. Powell
Clerk to the Board