

File No. CA 009-93

Linda Kamerman)
Mining and Lands Commissioner)

Tuesday, the 19th day
of January, 1999.

THE CONSERVATION AUTHORITIES ACT

IN THE MATTER OF

An appeal to the Minister under subsection 28(5) of the **Conservation Authorities Act** against the refusal to allow permission to place fill material on Part Lot 190-193, Registered Plan 122A, Part Lot 16, Concession IV, Town of Bradford, (West Gwilimbury) in the County of Simcoe.

B E T W E N:

WALTER BAK FARMS LIMITED

Appellant

- and -

LAKE SIMCOE REGION CONSERVATION AUTHORITY

Respondent

O R D E R

1. THIS TRIBUNAL ORDERS that the appeal of the application as amended on November 4, 1993 to permit the placing of 7,300 cubic metres of fill in accordance with the Cosburn, Patterson, Wardman Ltd. plan dated November 4, 1993, be allowed on the following conditions:

- a. That drawings be submitted, satisfactory to staff, showing each building has the main electrical panel located above the Regional Storm flood elevation, and all other electrical equipment not located above the regulatory flood elevation shall be floodproofed where possible, satisfactory to staff;
- b. That the topographic survey of the site, of November 4, 1993, be certified by an Ontario Land Surveyor or Professional Engineer;
- c. That a grading plan be submitted, satisfactory to staff, showing all proposed grades using existing fill on site below the elevation of 220 metres above sea level (0.3 metres below the crown of Morris Road at the property);

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- d. That the solicitor for Walter Bak Farms Ltd. provide an undertaking acceptable to the Tribunal and to the Lake Simcoe Region Conservation Authority that Migrant Worker Accommodation and the Government Inspection Station are not included as part of the proposed works;
- e. That an agreement which includes a letter of credit or security deposit in the amount of fifty thousand dollars (\$50,000.00) be entered into between Walter Bak Farms Ltd. and the Lake Simcoe Region Conservation Authority prior to February 19th, 1999, to guarantee that the grading of the existing fill and proposed construction of agricultural buildings are completed as approved; and
- f. As-built drawings shall be submitted to the Lake Simcoe Region Conservation Authority Staff, which are satisfactory to staff, prior to the release of the letter of credit or security deposit.

DATED this 19th day of January, 1999.

Original signed by L. Kamerman

L. Kamerman
MINING AND LANDS COMMISSIONER

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REASONS

This matter was heard in the Court Room of the tribunal, 24th Floor, 700 Bay Street, Toronto, Ontario, on October 28, 1998.

Appearances:

Marvin S.N. Geist

Counsel for Walter Bak Farms Limited

Kenneth C. Hill

Counsel for Lake Simcoe Region Conservation Authority

Background:

The facts surrounding the application to the Lake Simcoe Region Conservation Authority (the "LSRCA") by Walter Bak Farms Limited ("Bak Farms") are somewhat complex. What follows is a brief description of the background and summary of certain facts, which are dealt with in greater detail under "Evidence" below. 2

The Holland River, which is within the jurisdiction of the LSRC, flows from southwest to northeast, draining into Cook's Bay on Lake Simcoe. Within the floodplain of the river, from an area south and west of Highway 400 to just southwest of Highway 11 ("Hwy 11") lie the Holland and Bradford Marshes, which are engineered areas to permit lucrative farming of the valuable muck lands found in these locations. Within what is known as the Holland River Dyked Special Policy Area (Ex. 3, Tab 9, page 7), there are two engineered drainage canals [the North and South Drainage Canals] which, from south and west of Highway 400 to the vicinity of Bradford/West Gwillimbury encompass virtually the entire floodplain. These drainage canals permit water from the Holland River to be diverted, thereby ensuring less frequent and dramatic flooding, thereby protecting the muck farmlands from regular inundation.

Near Hwy 11, or Bridge Street, as it is known locally, the two canals narrow to a single point, being a pumping station just southwest of Hwy 11. Alongside the North Drainage Canal lying to the north is what is referred to above as the outer, western polder of the Bradford Marsh, triangular in shape, bounded by Hwy 11, Morris Road and the North Drainage Canal. It is within this triangle which the Bak Farms operate.

The lands within the Holland and Bradford Marshes have been subject to considerable subsidence in the 70 or so years in which muck farming has occurred. The level of the lands is in the neighbourhood of six feet lower than it was initially, due to subsidence, the rate of which has been mitigated in recent years due to sustainable practices. Subsidence means the oxidation of organics in the soils, so that it disappears into the atmosphere. This was allowed to occur quite dramatically during the early years of muck farming and has slowed only recently due to conservation driven methods of farming.

Bak Farms owns or leases approximately 150 acres of the 270 to 280 acres of the outer, western polder of the Bradford Marsh. Bak Farms also owns land fronting on Hwy 11, which at one time housed a retail operation. A number of buildings are located behind this retail space, which offer support functions to the farm operation. Included are various facilities of the farm operation, such as cold storage, processing, machine shop, greenhouses and storage. The operation at this location is cramped, and it is not the best use of prime commercial property. Lands along Hwy 11 are also subject to the Bridge Street Special Policy Area, which permits fill to be placed along 495 metres of roadway to a width of 405 feet. The Bak Farms lands on Bridge Street have not been filled and so the farm-related operations involved in this application are currently subject to flooding in a regional storm.

Bak Farms wishes to move the farming operations, which are to be distinguished from the retail facility, to a location 100 metres south on Morris Road. Along Morris Road, land in the outer polder drops dramatically the six or so feet looking eastward towards the West Canal. At the proposed site, there is a plateau made up of 7,300 cubic metres of fill, some of which was placed illegally and has been the subject matter of a prosecution under the **Provincial Offences Act**, R.S.O 1990, c. P.33.

This appeal of the LSRCA refusal is not the first appeal by Bak Farms to the tribunal. On July 15, 1994 a decision of the tribunal (file CA-022-92) dismissed the appeal of the first application, proposing the placement of 44,000 cubic metres of fill, which would have created one level plateau rising up out of the floodplain to house all of the Bak operations including migrant farm worker accommodation. The current appeal arises out of an application dated October 4, 1993 (Ex. 3, Tab 2). In the course of considering this application, pursuant to the position of the Executive Committee or the staff of the LSRCA, the application was amended twice more, but ultimately, the Executive Committee moved to refuse the application.

The reasons for refusal are contained in the letter addressed to Mr. Casey Bak, dated November 18, 1993 (Ex. 3, Tab 7) at page 3:

The Executive Committee was concerned that the control of flooding would be affected from excessive loss of storage capacity if it permitted the existing fill on-site (some of which is in violation) to be redistributed on site. They felt that this would set a precedent for other farmers in the area who may wish to construct on their land in a similar way with excessive filling. Ordinarily, the Authority grants permission to place up to 0.3 metres (1 foot) of fill under the area of new non-residential farm buildings in the marsh for drainage. However, the amount of fill placed on the subject property exceeds this acceptable amount. The Committee is concerned about the cumulative effect of a loss of storage capacity which would tend to increase flooding on other lands.

Pre-Hearing Conference

The tribunal was invited to Bak Farms to view the operation on October 4, 1994. A vast swath of the Holland Marsh polder was toured, along with the Bak Farms operations. The polder itself is comprised of hundreds of acres which are lower than the surrounding landscape by approximately six feet, although some of the roads themselves within the polder are elevated. The most striking aspect of these unusual lands is that the farm area seems to exist almost independently of the surrounding environs, the town of Bradford/West Gwillimbury and the highways. It is an area in which time seems to move more slowly. Large farm machinery travels the various roadways, either the canal roads, Morris Road or other internal roads which criss-cross the marshes. Unlike other county or line roads, there was no visible traffic pressure on the slow-moving traffic. Indeed, this is due to two reasons. The design of roads within the marshes does not provide ready crossing to vehicles who wish to avoid traffic on roads outside the marsh area. This resulted in the observed sparse and slow traffic on the roads within the polder areas.

This observation is made for the reason that, while egress and ingress to the proposed site are issues in this matter, visiting the site has led the tribunal to conclude that normal vehicular pressures found on any road which is not a short-distance dead-end, largely residential road, are absent. This is not a high volume traffic area.

The second observation of the tribunal concerns the Bak Farms operation itself. Although the operation was described in evidence at the earlier [February 1 & 2, 1994] hearing, the description did not do justice to the situation in which Mr. Bak has found himself over the years, nor does it describe his ongoing efforts to work within his existing spaces. The design for the long, moveable tables in the greenhouses is just one example. The greenhouses are arranged so that there is in effect only one row of access to the produce and seedlings on the various tables. However, each of the tables can readily be moved, despite their size and considerable length, by one individual, so that access can be gained to each row of tables. In effect, although the tables themselves move, it is the row between the tables which changes.

Similarly, although the dimensions of the processing plant as they now exist are not immediately apparent from this or the earlier appeal, the existing processing plant on the Bak property along Bridge Street, can best be described as "cobbled together". Several raised conveyer belts are placed at various angles to fit within the existing, cramped space. Considerable spoilage is experienced through this less than modern facility. Indeed, it is a credit to Mr. Bak's and his late brother's ingenuity that their system is able to work as well as it does, given the very real space constraints under which they have operated. The application proposes a processing facility and a packaging facility as separate buildings, the latter of which is considerably larger than the former. In the earlier hearing, Mr. Bak gave evidence that the nature of his operation required that produce be further processed for the convenience of consumers, who are becoming increasingly demanding, given greater affluence as well as less time to spend in the kitchen washing and chopping vegetables.

Issues

1. Are the proposed uses by Bak Farms of the processing facility and packaging facility accessory uses within the meaning of the Holland River Dyked Area Special Policy?
2. Does the proposed filling of 7,300 cubic metres of existing fill affect the control of flooding in the Bradford Polder? What effects does it have on the fragile engineered canal and dyke system?
3. Is the tribunal persuaded that there has been any or sufficient subsidence to influence its findings concerning the effect of the proposed filling on the control of flooding?
4. If the answer to questions 1 and 3 above are yes, is the tribunal satisfied that the proposed accessory farm uses are essential to the Bak Farms operation?

5. Where there can be no dry access and egress, are the conditions at the proposed location such that the appeal should be disallowed?
6. Does allowing the proposed filling as set out in the appeal cause a precedent or is it likely to contribute to the cumulative impacts of flooding in this highly sensitive engineered area?

Preliminary Determination

At the outset of the hearing, Mr. Geist asked the tribunal to reconsider its earlier finding concerning accessory uses, which are defined in Exhibit 3, Tab 9, page 7, as:

- c) Accessory Structures: Accessory structures shall be limited to agricultural uses such as greenhouses and farm implement and storage building. Electrical systems shall be installed so that the main electrical panel is located above the regulatory flood elevation. All other electrical equipment not located above where the regulatory flood elevation shall be floodproofed where possible. New commercial, institutional and industrial structures and uses will not be permitted in the floodplain.

In its earlier decision, the tribunal found at page 41:

The tribunal also finds that accessory structures, as used within the Special Policy, must be limited to functions which can be reasonably supported by the land which the structures occupy and the immediate vicinity. The processing plant proposed by the Bak operation is akin to a manufacturing plant. It is not the same as a shop for the storage and repair of farm vehicles used in the immediate vicinity. Nor is it the same as washing, sorting and packaging of vegetables to be sold at its commercial location on Bridge Street. It is the processing of vegetables to be sold wholesale for resale elsewhere that is beyond the scope of accessory use as it is meant here.

Mr. Geist submitted that the accessory use proposed by this appeal is contemplated by the Holland River Dyked Area Special Policy, a position with conditions attached which was supported by some of the staff but not accepted by the executive of the LSRCA. If the tribunal does not agree that the Policy does permit the accessory uses proposed, namely the processing, which according to Mr. Geist, necessarily includes the placing of fill, there would be no point in proceeding further. He reiterated that the proposed accessory uses

would be limited to agricultural uses. The migrant farm worker accommodation, being residential, has been eliminated from the current appeal. Mr. Geist invited the tribunal to reconsider its findings from the earlier hearing on this issue of accessory use, submitting that the decision had been in error.

According to Mr. Geist, the zoning by-law which governs the uses in this area defines agricultural uses as storage, processing, packaging, and sale and repair of farm equipment. The proposed site abuts the Bak farm operation and facilities. There is no use proposed; rather, the current operation on Bridge Street is becoming obsolete. Mr. Geist submitted that the washing and chopping of vegetables is part of farming; new and innovative packaging and presentations are now part of farming, having an adaptive perspective. Without the appeal being granted, the whole operation is in danger of becoming no longer viable.

In response, Mr. Hill submitted that the tribunal's prior findings were correct. The finding is exactly the same as is used and applied by the LSRCA. Mr. Hill invited the tribunal to find that the proposed processing plant would go well beyond what is contemplated by the Special Policy. According to previously adduced evidence, it has been suggested that processing would extend to produce shipped in from other farms. The question to be determined is whether this is an appropriate place to carry out the functions. Having regard to the policies as a whole, the thrust is to prevent non-essential uses in flood prone lands. Any special considerations given to this engineered environment should restrict permitted accessory uses to essential activities, limited to growing, harvesting and cleaning. The current proposal is akin to industrial, and therefore quite remote from what was contemplated by the Special Policy. Mr. Hill stated that there is insufficient evidence to determine that the proposed use cannot be located outside of this delicate and precarious property.

Mr. Hill pointed out that the zoning by-law encompasses farming related uses which are appropriate for high-ground farm uses, and not for the restricted and compromised dyked area. He reiterated that the Special Policy Area, a sensitive and engineered area, restricts potential uses to those which already exist and are essential to the farming operation.

Having viewed the operation, and in particular, having acquired a greater appreciation of the actual operation, as well as its unachieved potential, given the physical limits of the current building under which it operates, the tribunal finds that it will accept the proposed processing and packaging plants as accessory uses contemplated by the Special Policy. While the wording of the Special Policy is very limited, confined to greenhouses, farm implement and storage buildings, the fact is that there may be other accessory uses which have the potential to be accessory to a farm operation. This is particularly true in modern day farming, such as the Bak Farms operation, which encompasses over a hundred acres of muck farm lands owned or leased, leading to the growing of vegetables which need to be prepared for market, be it in a local produce retail, wholesale to be sold to retail stores in the city, or as somewhat processed goods.

It was specifically stated in the hearing, and will be repeated again here, the type of processing which the tribunal finds as being an accessory or ancillary use to the farm operation, would be limited to the cleaning, chopping and packaging of vegetables. For example, preparing of cabbage and carrots by chopping for coleslaw is one possible operation. Washing, tearing and packaging of lettuces for specialty salads is another. A third might be the chopping of carrot and celery sticks for regional luncheon counter operations might be a third. This type of secondary processing¹ would be limited to cleaning, chopping or tearing and possible mixing with other vegetables produced in the region. Any type of processing which contemplates an additional step, particularly when application of heat is involved, is not contemplated within this decision. For example, the preparation of processed foods for the freezer, such as french fries or potato puffs is excluded. Similarly, blanching foods for packaging and freezing is excluded.

Evidence

Nancy Ruth Mather, a principal of the engineering firm of Cosburn Patterson Wardman Limited, accepted by the tribunal as an expert in flood plain planning hydrology and hydraulics, gave evidence on behalf of Bak Farms. Ms. Mather briefly reviewed details of the first appeal, proposing the placement of 44,000 cubic metres of fill to create a two metre high raised plateau adjacent to Morris Road. The subsequent application (Ex. 3, Tab 2) was what Ms. Mather characterized as the culmination of meetings between Mac Cosburn, Casey Bak, Mr. Geist and staff of the LSRCA to arrive at an application which would be supported by the LSRCA. The modifications from the earlier, refused application had the objective of minimizing and reducing the amount of fill, while still retaining some higher elevation for the placement of certain buildings to provide flood protection (See letter, Ex. 3, Tab 1).

The application, dated October 4, 1993, requests retention of the existing 7,300 cubic metres of fill, to be augmented with the additional placement of 6,500 cubic metres of fill. The total proposed filling would be graded to a series of three 0.8 hectare (2 acre) plateaus; the one abutting Morris Road being 0.3 metres below that grade; the next being 0.9 metres below that grade; and the last being 0.3 metres above existing grade. The top plateau would house the storage building, processing plant, machinery shop; the middle plateau would house greenhouses and plant box storage; and the lower level would be for the operation of trucks, tractors, equipment and empty pallet storage. In this way, by using progressively less fill, a reasonable level of potential flood damage protection would be retained.

The staff report (found at Ex. 3, Tab 4) indicated that the proposed filling was excessive in light of the Special Policy, which outlines that accessory structures for agricultural

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¹ Primary processing being limited to the washing and straight packaging of vegetables. Examples might be bags of onions or carrots, bunches of leeks, or binding of heads of lettuce.

uses would see only the main electrical panel located above the Regional Storm flood elevation. Ms. Mather stated that before attending the October 22, 1993 Executive meeting, Bak Farms was aware that staff would not be supporting the three tiered proposal. In response, the drawings to the second application were modified (Drawing dated September 20, 1993, Ex. 13) to eliminate the middle plateau, with the higher plateau extending beyond the current extent of the existing 7,300 cubic metres of fill. The lower plateau was proposed to be graded from 0.5 metres above existing grade at the incline to 0.15 metres at the property line.

This application was considered by the Executive Committee on October 22, 1993. A copy of the staff report is filed, (Ex. 3, Tab 4) with a notation in the minutes expressing staff's opinion that the proposed fill is excessive. The staff report closes with the following statement:

Staff have discussed revising the proposal **to use the existing fill** on side to grade a sufficient area for vehicle movement off the road and around the buildings to avoid excessive lost storage area of the floodplain. [*emphasis added*].

The Executive Committee Minutes (filed at Exhibit 3, Tab 5) contains the following statement and resolution:

The Committee expressed serious concern about the proposed grading and construction plan. The Committee was concerned about the quantity and quality of the fill on site and the proposal requiring more fill. **A new revised plan, resulting from discussions with staff, is being proposed for consideration.** The members recommended the revised proposal be deferred until the next meeting to permit staff and members to review the plan. Mr. Geist noted the revised plan is consistent with discussions with staff. [*emphasis added*]

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ES-93-213 **RESOLVED THAT approval not be granted under the Conservation Authorities Act and Ontario Regulation 153/90, as amended by Ontario Regulation 534/91, to Walter Bak Farms Limited as shown on the plan dated September 20, 1993, submitted with the application.**
FURTHERMORE, THAT staff be directed to review the new plan for the area and report back to this Committee.

A second revision to the application drawings (Ex. 14) was prepared, using only the existing fill on site [note: this is the fourth set of drawings from the time of the initial first application], with the upper tier extending no further than it currently does. The lower tier is also designed at a lower elevation than found on the previous two tiered drawing, being graded from approximately 0.3 metres to 0 at the outer edges. Ms. Mather compared this with the existing practice of the LSRCA in the Special Policy Area of allowing 1 foot of fill at the building site, graded away from the building to zero, which, if applied to the Bak Farms application, and retaining the higher plateau at its current square footage, but reduced height, along with the lower elevation on the lower tier, resulting in less fill than is currently on the site.

Ms. Mather stated that staff would support a third and final revision (See Ex. 3, Tab 3) evidenced by a copy of the draft resolution of the Executive Committee to have been dated October 22, 1993 (Ex. 3, Tab 3) sent to Mr. Geist by Dan Frank, then regulations officer of the LSRCA on October 21, 1993. Ms. Mather relies on this document to substantiate her client's position that the staff was agreeable to using the existing fill on site in support of the amended application.

Acting on the direction of the Executive and its understanding of staff support, the third plan dated November 4, 1993 (Ex. 14) was submitted for consideration at the meeting of the Executive Committee held November 5, 1993. At this meeting, the Executive Committee determined that the amended application would be refused. The three stated reasons (Ex. 3, Tab 7, page 3) were that the control of flooding would be affected from excessive loss of storage capacity if the existing fill on site were redistributed; that permitting the application would set a precedent for other farmers in the vicinity; and that there was concern for the cumulative effect of the loss of storage capacity which would tend to increase flooding on other lands.

Ms. Mather reviewed for the tribunal the reasons for the proposal to move the operation from Bridge Street to Morris Road. The Bak Farms operation has been in the Bradford Marsh for over 50 years, being a family operation, and currently farming 150 acres of the 250 acre marsh. Essentially, the accessory uses are located to the rear of the retail store, and are small, inefficient and incur a great deal of spoilage. With proper modern facilities, Bak Farms could provide value added to its produce, essentially performing the initial preparation of vegetables which the modern family looks for and requires to manage. To do so is seen by Bak Farms as a necessary step in remaining competitive and maintaining its viability.

At the prior request of the tribunal, the matter of subsidence was highlighted. Documents filed in the prior appeal (CA-022-92) were refiled as Exhibits 15C and 15D. The latter is a letter from Ross W. Irwin Enterprises, a water management engineer, addressed to Casimir J. Bak, dated February 3, 1992. The following information is summarized from that letter. Prof. Irwin was involved in research of the hydrology and water resource regime of the Holland Marsh area, including the Bradford Marsh, which he states is comprised of 200 acres,

from 1958 to 1985, which included making an estimate of the original surface elevation and total loss due to subsidence. Prior to the growing season of 1926, water covered the surface of the Bradford Marsh and was pumped out in that year. The original topographic survey map is available, but the benchmark has disappeared, so that it was necessary to reconstruct the applicable data from earlier maps of peat deposits. It is Dr. Irwin's opinion that the original surface elevation of the Bradford Marsh was 723 feet. The results of the survey commissioned by Bak Farms dated November 23, 1992 indicate that the present surface elevation (aside from the filled area) is 716.85 feet. Prof. Irwin concludes by stating that the total loss of surface elevation due to subsidence during the next 65 years (1927 to 1992) was 6.15 feet.

Dr. Mary Ruth MacDonald, in a letter dated November 30, 1992 (Ex. 15C) summarizes research conducted at the Muck Research Station. The area is drained by ditches, rather than tile drains, and as such, research has shown, these lands have a rate of subsidence of approximately 1.1 cm/yr (or 0.44 inches/year). There is discussion regarding the likely remaining levels of muck, which would have necessarily been mixed with underlying clay due to cultivation, which renders it less suitable to muck farming, which requires a high organic content, in the neighbourhood of 50 to 95%. In a subsequent letter from Dr. MacDonald (Ex. 15E) dated October 27, 1998, she states that the information provided in 1992 concerning the elevation and soil content of the Bradford Marsh would not have changed in any appreciable manner and "(i)f anything, the organic matter content and the height of the soil will be less now than in 1992 when I examined the site."

Ms. Mather explained that there are two types of subsidence which take place. The first is when ponded water is drained, so that there is an initial packing of the soils, which happens in the early life of a drained marsh. The second is when the organic substances which form the composition of the muck soils themselves, namely carbon and organics, oxidize when they come into contact with the air. Essentially, the carbon combines with the oxygen in the air, creating CO₂, and the soil-like muck disappears into the air.

Ms. Mather stated that she spoke with Irv MacIntosh of ESG International, who has a Ph.D. in soil science and is a faculty member of the University of Guelph, who verbally confirmed soil losses with her. He indicated that this was particularly so in the outer areas of the marsh. Even with current practices of soil conservation, meaning to once again raise the water table a certain amount to minimize opportunity for oxidation, there will be continued soil loss, albeit at a decreased rate.

Ms. Mather reviewed for the tribunal how the floodplain operates within the Holland Marsh Special Policy Area. It is not a normal floodplain, but a polder, which was constructed in the 1920's through drainage canals. The canals operate to drain water from the river, so that the inner polder (not those lands involving the Bradford Marsh) will flood later than the outer polder. This is accomplished through the heights of the canal walls, which ensure that the outer polder will flood before the inner polder. Having no other outlet, the outer polder acts as a bathtub, filling across its breadth at the same rate. There are 115 hectares in the outer polder. The floodplain is 3000 metres in width. . . . 11

The proposed site on Morris Road is located at the outer fringes of the bathtub. At times of severe flooding, waters overflowing the canal would enter the polder nearest the dyke first and would flow outward towards Morris Road. The lands along Morris Road and those along Bridge Street would be among the last areas to flood. Ms. Mather pointed out that the lands along Bridge Street are subject to a Special Policy which allows for the placing of considerable fill to bring this commercial area above the regional storm floodline elevation.

Based upon the annual subsidence, Ms. Mather stated that, although the outer polder acts as a bathtub, its bottom is getting lower each year. In that regard, there is more floodplain storage now available than there was years ago. The pumping station controls water levels in the canals, so that the outer polder is to be flooded only during extreme storm events, such as the 100 year storm.

Ms. Mather pointed out that the subject property is within the Special Policy Area. The Bak Farms proposal does have the main electrical panel above the floodline elevation, being a condition which Ms. Mather suggests that the draft resolution approved by staff (Ex. 3, Tab 3) indicates that staff agrees with this.

Ms. Mather referred to one of the reasons given for the refusal, namely that control of flooding would be affected by the proposed placement (in actual fact, allowing to remain) of fill, and referred to a document prepared for the earlier hearing and resubmitted as Exhibit 16, entitled, "Summary of Fill and Water Levels, Bradford Marsh". It shows that the 44,000 cubic metres of fill proposed in the CA-022-92 matter would have resulted in 0.038 metres or 1.5 inches increased water levels. The current proposal to allow the existing 7,300 cubic metres of fill to remain would increase water levels by 0.006 metres or 0.2 inches. These figures do not take into account the subsidence which has occurred since 1992.

Ms. Mather summarized:

1. The potential increase in floodline elevation of 0.2 inches is offset by real losses in elevation due to subsidence.
2. The proposal and implications of the placement of 7,300 metres of fill have been acceptable to staff, based upon the draft resolution. It recognizes that some loss of storage is allowed. Development could not otherwise occur within the marsh if this were not so.
3. The proposed filling is to take place within the flood fringes and not on lands which touch the watercourse itself, or abutting the canal dyke walls. Therefore, there will be no constricted flows or increased velocities incurred.

As to the matter of precedent, Ms. Mather referred to Exhibit 6, being the Supplementary Report prepared November 3, 1994, which was written to be read in conjunction with Exhibit 28 of CA-022-92. Ms. Mather stated that the application is unique in its proposed relocation and expansion of existing flood vulnerable and outdated uses as opposed to the construction of new uses in the area. The proposal is designed to provide increased flood protection to some of those existing uses. On page 4, the last bullet of the Supplementary Report states:

- O Cumulative effects of this filling proposal are insignificant since the uniqueness of this proposal limit the likelihood of other similar applications. In this case, uniqueness includes its location in the outer fringe of the polder, the expansion of existing uses, and the relocation of existing, outdated flood vulnerable uses that can be given increased flood protection.

Ms. Mather gave her opinion that the proposed filling would not have an effect on flooding nor cause constriction within the watercourse. The Special Policies do permit some filling; there is no resulting increase in flood velocities; and in a watercourse this large the impacts of the proposed filling would be minimal. The theoretical loss of storage capacity would be countered by the loss of soils through subsidence. There is no risk to loss of life. There is less risk to persons using the proposed buildings than those using the existing facilities to the rear of the Bridge Street property found at lower than proposed elevations. As to the matter of floodproofing, Ms. Mather stated that in her opinion, the proposal falls within the exemption in the Special Policy and should be found to apply. The granting of permission would not pose a precedent for other situations due to its uniqueness. While cumulative effect is generally an issue, the uniqueness of this proposal should remove this concern.

Furthermore, the consultants on behalf of Bak Farms have responded numerous times to make changes, the draft permission (Ex. 3, Tab 3) was prepared by Rennie Vos and Dan Frank, who must have felt that the amount of fill was not excessive, or the draft would not have come into existence.

Currently, there are two access routes to the proposed site, namely along Morris Road to Bridge Street or following Morris Road south to the subdivision at Simcoe Street. The Bridge Street side only has that street for access and egress. Ms. Mather indicated that there are virtually no lands within the policy area which have dry access. To do so, one would have to have a road going directly into the Marsh and the lands would have to be within the fringe. Mr. Geist noted that the Policy is silent with respect to accessory structures, and only makes mention of dwellings. Ms. Mather agreed that markers along Morris Road would deal with this issue adequately.

In response to the tribunal's question, Ms. Mather stated that flood elevations along Morris Road would be between .3 to .6 metres in depth, so that dry access is not feasible. If dry access were to be required, no one could meet this stipulation. Only dwellings require dry access.

Under cross-examination, Mr. Hill questioned the number of acres/hectares in the Bradford Marsh and the number owned or leased by Bak Farms. Through discussion, he sought Ms. Mather's consensus that Bak Farms has an interest in 54 percent of the Marsh, based upon 150 acres of the 270 total. Ms. Mather indicated that the Marsh is comprised of 115 hectares (calculated by the tribunal to be 284 acres). Ms. Mather indicated on the map for Mr. Hill and the tribunal those actual lands in which Bak Farms has an interest.

Ms. Mather agreed that other plots of land within the polder have similar topography, and would be subject to similar loss of productivity to the Bak lands, based upon opinions and information provided by Drs. Irwin, MacDonald and MacIntosh. Ms. Mather could not respond when asked whether other property owners faced with similar problems would not wish to look for alternative uses for their no-longer-productive lands.

Asked about elevations within the Bradford polder either next to Morris Road or to the canal, Ms. Mather agreed that, while there might be a difference of a foot or two, the elevations looked very similar on the map. Mr. Hill suggested that, given the flatness of the bathtub, it would make very little difference where the proposed filling were to take place, be it on the fringes or next to the canal.

Mr. Hill suggested that the subsidence due to the loss of muck would not significantly impact on the storage capacity of the polder, given that most of the decreased elevations took place historically, prior to the floodplain mapping, which established elevations. Ms. Mather did not agree, stating that the mapping took place in the 1980's and subsidence has continued to this day, so that the loss between the time of mapping and today is not shown on the floodline elevation.

Reviewing the evidence concerning recent subsidence, Ms. Mather did not agree that the muck would become insignificant over time due to its loss. She stated that in certain areas, the muck remains quite deep, as it is not evenly distributed over the surface. She did not know whether this information was taken into account by MacIntosh when he formed his opinions concerning the subject lands.

Mr. Hill that stated the potential for adding fill to take place throughout the Bradford Marsh is considerable, based upon the Bridge Street Commercial Policy, which allows for the placement of up to 70,000 cubic feet of fill. The context in developing that Policy, he suggested, was that some filling was allowed in the Bradford Marsh already.

Ms. Mather stated that the replacement of existing uses found in the proposal is unique. However, in response to Mr. Hill's question of clarification, Ms. Mather replied that the proposal does not involve the removal of some of the fill at the Bridge Street location, although there is currently not a lot of fill at that site.

Mr. Hill suggested that it is feasible to install the kinds of uses proposed without the use of the considerable fill proposed. For example, with minimal fill, a two storey structure could be built, which the trucks could back into, so that flooding could take place underneath on the first floor. Ms. Mather indicated that this would not be practical, as truck access is required at ground level would need access for the various pieces of farm machinery. She was also not sure whether it could be made effective with the large trucks having to go up and down. Ms. Mather concluded by stating that the last refinement of the proposal was based upon using most of the existing fill, which she assumed everyone was happy with, namely staff, the executive, and certainly the consultants. Therefore, her firm did not look for further, alternative solutions.

Mr. Hill questioned whether the site would reduce risks of working in the floodplain, when the current location is over 1 1/2 times as far from the outer limits of the floodplain as the current location on Bridge Street. Ms. Mather did not agree with this assessment.

On re-examination, Ms. Mather stated that the current dimensions of the site are 75 metres by 100 metres. Ms. Mather indicated that the site would be among the last to fill, as there are areas which are lower. Ms. Mather indicated that the Bridge Street Commercial Policy dated March 20, 1990, which was adopted after the Holland River Special Policy has led her to conclude that there is more room for filling and development within the Bradford Marsh. The Policy recognizes allowing more fill.

On the matter of access and egress, Mr. Hill suggested that the southern route of access in a storm event would send one going into the direction from which the flooding would be coming, namely upstream. Ms. Mather stated that over the distance involved, one would not see anything of significance.

To clarify, Ms. Mather stated that markers would have to be placed by the township. There are currently none on Morris Road. Ms. Mather stated that she is not a traffic engineer, so she could not comment on the depths of the ditches. In re-direct, Ms. Mather stated that emergency vehicles can access both Morris Road and Bridge Street during a regional storm event.

Thomas George Hogenbirk, a professional engineer was recognized by the tribunal as being qualified to give opinion evidence in matters of hydrology and floodplain management. Mr. Hogenbirk is employed by the LSRCA and gave evidence on its behalf.

Mr. Hogenbirk commenced his testimony by stating that, after reading all of the reports prepared, and in light of his own report dated January 18, 1994 (Ex. 8) he continued to have concerns regarding the extent of the proposed filling. The placement of fill is in excess of what is suggested to be used in an application such as for Bak Farms. The LSRCA operates with a more permissive approach to the placing of fill within the Holland Marsh area than elsewhere where its General Policies apply, but nonetheless, every application is looked at with a view to minimizing the amount of fill required. Normally, one foot of fill is allowed for the foundation of buildings, which is tapered off to zero. In a flood event, buildings are designed to allow flood waters to penetrate, thereby minimizing the loss of flood storage capacity within the floodplain.

Mr. Hogenbirk stated that the importance of the outer Bradford Marsh polder is that, if areas within it are filled, this in turn would cause added pressure to the internal areas of the Marsh. The outcome of permitting filling would be to increase flooding for longer periods of time.

In Mr. Hogenbirk's opinion, the distance of the proposed site from the canal is not of significance, because of the relatively minuscule drop in elevation over that distance, being approximately .2 metres. Contrary to Ms. Mather's evidence, Mr. Hogenbirk stated that the actual flood fringe is to the west of Morris Road, where the flood levels would taper to zero at the end of the floodline elevations on the map. Immediately to the east of Morris Road, the flood elevation levels are two metres. If the weir were blocked off, it would compound the problem, as the flow path would be blocked getting past the weir.

Discussing the Special Policies of the Holland River Dyked Areas, Mr. Hogenbirk stated that the approach taken for applications is permissive, recognizing that some degree of fill is required, although steps are taken to minimize the amount of fill allowed. The Bridge Street Special Policy does allow considerable amounts of fill, essentially bringing the lands alongside up to the street level. The purpose behind this is to allow a progressive and lenient policy with respect to the commercial area.

The impact of allowing the current appeal would be minimal on the dykes if such filling could be limited to one case. However, by allowing it, there would be a precedent for similar filling within the polder, the impacts of which would cumulatively reduce storage capacity within the polder. This would put more pressure on the internal dyke, which would incur higher frequency of overtopping to the lands within the two canals.

The proposal is to allow 7,300 cubic metres of fill, which translates to 730 dumptrucks of fill. In the context of the proposed use for these lands, this is well in excess of what was envisioned by the Special Policy for that property. It becomes difficult to tell other landowners that they cannot also fill their land to that extent. Once control over the amount of filling is lost, the pressure to fill and develop increases. Minimization of the allowable filling ensures minimal impact. Otherwise, the area would be subject to increased pressure.

As to access and egress, Mr. Hogenbirk agreed that, as the land is not residential, this issue would not be determinative on its own. Nonetheless, the proposed site would find itself in the middle of a lake within 24 hours of the time a major storm hits.

Another consideration is that this may not be a suitable use of this land. Bridge Street is contrasted, being a wide road, fully lit, having curbs and gutters. Morris Road has a severe drop off. The problems encountered during a storm may not occur during clear or daylight conditions, and all of a sudden, the road would be flooded. In Mr. Hogenbirk's opinion, he would not recommend the current configuration be approved. Asked to suggest alternatives, he stated that anything which would minimize fill would be suitable, such as a two storey set up to allow the base of the building to flood. If that were not feasible, he suggested allowing an apron, which permits drainage. In total, his goal would be to minimize filling.

During a storm of high intensity with over 12 hours of rainfall, it could be a matter of hours before flooding occurs, such as overnight. Recent experience with the flooding of the Mississippi in the United States and around Winnipeg, shows that the Hurricane Hazel flood may not be the typical storm profile, but that flooding is as likely to occur from intense rain or snow melt events. Mr. Hogenbirk discussed the warning system in place, and the length of time it would take for the flood to come down the watercourse. He agreed that these would be approximately in the middle of the flooding of the length of the watercourse. A backwater event from Cooks Bay in Lake Simcoe could occur independently, such as during low water levels.

Under cross-examination, Mr. Hogenbirk discussed the role of Rennie Vos and Dan Frank in preparing the draft resolution, indicating that he did not doubt that they worked on it. He also agreed that the staff of the LSRCA consulted with Bak Farm's consultants and counsel, and that the application had been amended at least three times.

Asked how much fill constitutes a small amount, Mr. Hogenbirk stated that it would be the absolute minimal amount of fill to accomplish what was proposed. For example, around a house, the fill would be to ensure that flood waters drain away from the dwelling. Mr. Hogenbirk agreed that the current appeal does not have a residential component. Mr. Hogenbirk stated that the one foot rule regarding fill is not written, but it is a general rule. He agreed that the LSRCA does allow filling.

Mr. Hogenbirk stated that there are many roads within the marsh, but none have curbs and gutters; rather ditches are involved. Construction is nonetheless allowed, particularly with respect to the replacement of homes which have burned down.

In the ten mile length of the Holland Marsh from Highway 400 to Highway 11, there are three bridges heading out over the canals. Mr. Geist suggested that there are ten miles

of crisscrossing roads with no way to get out, stating that the proposed site is in one of the best situations for egress, being metres from Bridge Street. Asked about new barns, storage sheds and the like, Mr. Hogenbirk stated that factories are not allowed, and the proposed construction would involve the hiring of additional workers.

Mr. Geist suggested that the proposed filling of the site is not significant on its own, .02 metres, to which Mr. Hogenbirk replied that it is significant due to the amount of water which is displaced, which finds its way downstream more rapidly, and increasing flood water levels in general. In the context of impacts around Lake Simcoe, it is even more significant. Once the filling commences, cumulatively, there would be very real impacts.

Discussing the Bridge Street Commercial Policies, passed in 1990, Mr. Hogenbirk reiterated that it allows for considerable fill and development. The Holland Marsh Dyked Areas Special Policy allows for minimal scale development and minimal fill. This is not specifically stated in the Special Policy, however. Mr. Hogenbirk stated that each case stands on its own merits, but the objective is to minimize fill, done subjectively on a case by case basis. Mr. Hogenbirk stated that it was not a case of meeting in the middle, but one of determining the absolute minimal amount of fill to do the proposed construction. Elsewhere, cut and fill is required, although this does not apply in the Holland Marsh.

Mr. Geist suggested that if a judicial body were to rule differently than the LSRCA, the Authority could just state that it was consistent in its policy application. Mr. Hogenbirk questioned whether this approach would work. Mr. Geist suggested no one else in the area has been farming for 53 years. Mr. Hogenbirk agreed that there have been no other applications to relocate the types of accessory uses proposed by Bak Farms. Mr. Hogenbirk stated that, if allowed, subsequent refusals could also appeal to the tribunal for permission.

Final Submissions

Mr. Geist reiterated the evidence that Bak Farms has operated in the area for 53 years, and its current manner of processing its produce for sale is obsolete, wasteful and costly. The only solution is through the proposed application. Mr. Bak could have used the lands on Bridge Street for this purpose, which allows for filling. After considerable meetings with other Ministries, there was general consensus that the proposed site was the best. The lands are marginal. They are close and in direct proximity to where crops are grown. Not much soil is left at this particular location. Bak Farms cultivates everything, starting many plants from seedlings in the greenhouses. The harvest, cleaning and processing takes place in connection with the farm operation. The proposed construction is to allow Bak Farms to be competitive, adhering to today's economics.

The existing facilities require major improvements. The existing floodplain conditions behind the Bridge Street site are lower than the proposed site. Bak has infilled

the land to provide floodproofing to the new facilities, which is not the case with the existing facilities on Bridge Street. The proposal also includes consideration of less risk to financial investment. The LSRCA recognized the uniqueness of these lands, having amended its 1984 Special Policy to add the Bridge Street Policy. The proposal is essential to the continuation of the Bak operation. There should be no doubt of the intention of Bak Farms to remain in the area, after 53 years. The proposed use would be limited to agricultural operations.

This application has met the approval of some of the staff, namely Rennie Vos and Dan Frank, agreement having been reached through a series of amendments. Technical staff of the LSRCA were therefore willing to recommend this to the Executive, indicative of its recognition of the Bak operation.

The placement of filling is not unique, as evidenced by the terms of the Bridge Street policy. The LSRCA does not have specific criteria with respect to the allowable placement of fill. Rather, the application of its policies is discretionary. The one foot policy is unwritten, and informal. Mr. Hogenbirk stated that overall .02 metres is not significant in its impact of increased flood level elevations. Mr. Geist submitted that there are inconsistencies in applying the policies, as there is not a set amount of fill which would be permitted.

Regarding the safety factor, Mr. Geist states that the early warning system will work better at this location than elsewhere in the ten mile polder, which has five egress points. This location has two within 100 metres. Mr. Geist submitted that Bak's egress from the Marsh is better than anyone's in the Marsh. The Special Policy could not work without anticipating some degree of loss of storage capacity, which according to the evidence of Ms. Mather is insignificant in this case. There are 6,000 hectares of land draining to Lake Simcoe. Allowing the proposed filling would create no measurable change, no measurable blockages of flow, bridges, waters, not to mention the increased availability of flood storage capacity each year due to subsidence. This is a unique situation.

The subsidence has resulted in increased available storage every year. Bak operates 70 percent of the available lands within the Bradford Polder. This location is unique, within the outer fringe. Water creeps over the site. It would be different if the proposed filling were to take place along the canal and should therefore be considered as on the right side of things.

The proposal complies with existing uses contemplated in the by-law. If allowed, Mr. Geist stated that it would be recommended to the Township of Gwillimbury to post markers along Morris Road.

Mr. Geist asked that he be given the opportunity to speak to the issue of costs.

Mr. Hill submitted that the LSRCA believes that the application is unwise and ill-advised. It will affect the control of flooding in the area. He submitted that the onus is on the

appellant to convince the tribunal that permission would not affect the control of flooding and in his submission the proposed use and the amount of fill which accompany it are unnecessary. It would be inappropriate to introduce this amount of fill into a highly engineered area.

As to Bak's status within the Marsh, it is obvious that farms change hands from time to time. In fact, the Bridge Street store has changed hands since the last hearing. Mr. Hill contested the calculation of 70 percent of lands farmed by Bak, stating that Ms. Mather calculated it to be closer to 54 percent.

There is considerable evidence that the quality of the lands and actual soils is diminishing. The proposal is to redevelop the lands because they can no longer be farmed. If that is the case for the Bak property, it must also be the case with other properties within the polder. There is concern that this proposal would get redevelopment of the marsh off on the wrong foot.

The proposed use, in Mr. Hill's submission, is a mixture of agricultural and industrial use, at a location which will be an island during flood events. In its earlier decision involving these lands, the tribunal states that the watershed development policies provide that accessory structures which may be permitted must be built without the addition of fill. At pages 40 and 41 of the earlier tribunal decision it states:

... Mr. Geist has argued that the conditions of paragraph 9(a) of the Special Policy are virtually impossible to meet, particularly with respect to dry access. This appears to be quite true, and speaks to the extent to which the LSRCA is prepared to exercise its discretion in allowing development within the dykes area. This is reinforced by the tribunal's finding that the accessory structures which may be permitted under paragraph 9(c) **must be built without the addition of fill** [*emphasis added*].

.....

The tribunal finds that proposed filling would affect the control of flooding in the Holland River Dykes Special Area by impacting on the infrastructure of the dykes to an extent that is likely to create instability and impact on the adequacy of flood proofing done elsewhere in the system after the fact.

Mr. Hill invited the tribunal to not depart from its earlier findings. Mr. Hill submitted that the prior approach was correct. While the final decision rests with the tribunal as to whether to adopt or reject the policy, it must take into account in such consideration the matter of cumulative effect.

With respect to comments regarding current operations at Bridge Street, Mr. Hill is in agreement that certain portions of Bridge Street are lower, but those filled portions are now higher than the proposed site. The elevations of those sites on portions of Bridge Street which have been filled will be similar to the proposed level of fill on Morris Road.

Mr. Hill related the Special Policy back to the general policy, which does not allow building on land which will have more than a metre of fill, or requires balanced cut and filling. This is relaxed for the Holland Marsh, where the LSRCA is unique in its approach, the objective of which is to minimize the impact on the infrastructure designed to protect the unique and valuable land.

Regarding subsidence, Mr. Hill submitted that the evidence provided by Ms. Mather is sufficiently vague and insufficient to measure the effect of subsidence, not only from the time of the engineering studies resulting in the drawing of the maps but for the future.

Mr. Hill submitted that, having considered the new evidence received at the pre-hearing conference and this hearing, the decision of the tribunal should be the same for a number of reasons. It would change the character of the northwest corner of the floodplain. There is no authority for the permission granted to limit incoming produce from other non-Bak Farms operations. Nor is there the ability to trade the allowable fill on Bridge Street for fill along Morris Road. Part of the application is to relocate existing uses. There is no guarantee that the existing uses would not disappear, nor would it be practical, given the pressure for development and the existing policy.

With respect to the issue of access, this alone is not enough to stop development, but may be a factor and should be taken into account. Another indicator is that it is not a wise use of the property. The tribunal stated in its earlier decision at page 41:

In addition to impact elsewhere in the dykes area, there is nothing within the Special Policy, as it now exists, which supports extensive placing of fill along a stretch of secondary road which will be inundated during a severe storm event. The tribunal notes that Morris Road will be under at least 12 inches of water, with over two metres of flood depth on either side, creating a hazardous situation for both those working at the site of the filling and emergency vehicles. As it now exists, Morris Road is not designed to accommodate in storm conditions the traffic which a major produce processing plant would require.

Mr. Hill submitted that nothing in the Special Policy contemplates filling along a secondary road which will be inundated in a regional storm. It would be hazardous for those working at the site and for emergency vehicles. Morris Road is not designed to accommodate produce trucks. In summary, for the reasons indicated, Mr. Hill stated that it would be inappropriate, unnecessary

and unsupportable for the proposed placement of fill, due to its direct impact and on a cumulative basis.

Mr. Geist reviewed the matter of the illegal placement of the fill, including potential costs for its removal. As to the issue of precedent facing the conservation authority, Mr. Geist submitted that it would be easy for the LSRCA to say to a prospective applicant in another matter that it is not an historic farmer. The proposed use in this case is an existing use currently carried on within 100 metres of the proposed location. There is planting going on immediately adjacent to the proposed site. The LSRCA should have no difficulty in controlling the extent of the merits of these matters.

The proposed filling would increase floodline level elevations by .2 inches, which in Mr. Geist's submission is not detectable, being so small as to be immeasurable. Mr. Bak does not farm other operations, but his own farm is the biggest in the valley. The policy doesn't talk about whether one is selling the property. As to the suggested isolation of Morris Road, Mr. Geist questions what this means. It is 100 metres from the existing operations, in an area which is susceptible to flooding.

The previous appeal was for 44,000 cubic metres, which was found to be excessive. On the current appeal, staff found that even the placement of 6,500 additional cubic metres of fill with what was currently on site, excessive, although senior and former staff approved, but the executive could not be persuaded. Mr. Geist submitted that his client is asking now only for the fill actually on the site today, being 7,300 cubic metres. The Special Policy does not say anything about a limited or any amount of fill.

Mr. Geist submitted that the subsidence has been creating storage capacity for years, and the proposed fill would result in .2 inches of increased flooding, certainly not something that has not already been taken out. The proposal does not change the character of the Bak operation. Even the Special Policies recognize the continuation of existing uses. The proposal is essential to the Bak operation for its continued viability. Mr. Geist stated that he failed to understand how this could not be a wise use of the property. The Ministry of Agriculture and Food is supportive. The township does not want the land put to other than agricultural uses. The proposed use is ancillary to the entire farming operation.

Findings

The main issues in this appeal concern whether the proposed (although in matter of fact already in place) placing of 7,300 cubic metres of fill would affect the control of flooding in the Holland Marsh through an excessive loss of storage area. Ancillary to this is whether the proposed filling, if allowed, would create a precedent for other similar proposals which, in turn if allowed, would cumulatively impact on the control of flooding in this engineered area.

It is safe to say that in most appeals involving filling in a flood plain, conservation authorities have calculated through engineering models the extent of potential flooding corresponding to the applicable regional storm. Within areas of their jurisdiction, some construction, filling or both may be allowed, for various reasons contained within individual conservation authority policies or within the Provincial Policy Statements. In considering whether to allow the placement of fill within the fill lines drawn on their mapping, careful consideration of potential anticipated impacts is weighed. What is guarded against is the certain rise in flood level elevations or flood velocities which are certain to occur, should a large number of similar placements of fill be allowed to accumulate. These impacts are of concern generally, but also due to their adverse effect on existing improvements. Examples include greater flooding around bridges or culverts or higher flood levels on buildings which were constructed to keep them safe from floodwaters. Therefore, an inch of additional flooding could encroach on main floors which had been above the floodline elevation, or main electrical panels could become vulnerable.

There are two points of departure with the Holland Marsh Dyked lands from the more routine concerns involving proposed filling or construction in flood plains. The first is that the decision has been made, through the design of the dyke system, to afford a greater degree of flood protection to lands in the inner polder, being the lands between the two dykes. This is evidenced by the height in the canal walls, allowing flood waters first to move to the outer polder before the inner polder is inundated. Therefore, care must be taken in considering whether to allow placement of fill, of not only damaging the fragile canal walls, but also in ensuring that the amount of flood water which will flow into the inner polder can be handled by existing development, which was built to certain levels and standards in direct anticipation of flooding.

The second point of departure is the matter of subsidence. The tribunal has considered the information attributable to Drs. McDonald, Irwin and MacIntosh, being either their letters or verbal comments and opinions, which were introduced and discussed by Ms. Mather, a professional engineer. It is highly irregular to have expert testimony given through a witness from a different discipline, particularly as none of these professionals were recognized as expert witnesses, nor was Mr. Hill given the opportunity to cross-examine them. However, the tribunal derives certain authority under subsection 15(1) of the **Statutory Powers Procedure Act**, R.S.O. 1990, c. S. 22, as amended, which allows a tribunal to admit oral testimony, or any document or thing not proven under oath which is relevant to the subject matter of the proceeding.

The tribunal has considered the information provided on subsidence and finds it to be compelling. This is not based upon some radical notion of what may take place in complex, soils science, but rather, based upon the irrefutable fact that the marsh lands are approximately six feet lower than the surrounding landscape. All one need to is

stand at the edges of the marsh to see first hand that subsidence is very real. The tribunal finds that it will give considerable weight to the evidence presented on the matter of subsidence for the reason that it is clearly at work within the Marsh area. Moreover, it is a factor which will have some significant impact on any findings as to whether the placement of fill will affect the control of flooding. It is unusual that the LSRCA has not determined that it is necessary to deal with subsidence in their Special Policy, engineering models and mapping for this area and more particularly that the information provided was not refuted in making its case.

The tribunal finds that subsidence is a factor operating within the Holland Marsh, which has the ongoing effect of lowering the elevation of the marsh floor. The tribunal further finds that the effects of subsidence have not been factored into calculations for either flood line elevations nor available flood storage since the mapping of the floodlines in 1984. As to the rate of subsidence, the tribunal finds that it will rely on the rate of 1.1 cm. per year as a starting point for its determinations which follow. This rate found in the letter of Dr. McDonald (Ex. 15C) and her comments that elevations will have continued to decline from the time of her visit in 1992 (Ex. 15E). In using this figure for calculations below, the figure will be modified to demonstrate caution and allowing for the fact that, as clay soils become mixed with the organic muck, subsidence will occur at a decreasing rate.

The tribunal can think of no other case in the 25 plus year history of hearing appeals from refusals of conservation authorities in which the elevations of the flood prone lands continues or may continue to fall. This second point is one which the tribunal finds the LSRCA has failed to address directly in its Special Policy for the Holland River Dyked Areas, in presenting its calculations and for making determinations of whether, on the facts of this case, the proposed placement of fill will affect the control of flooding.

This is not to say that the LSRCA has not dealt with the matter of subsidence indirectly, through adoption of its Bridge Street Commercial Special Policy Area, although whether its adoption of the commercial policy is based upon available flood storage due to subsidence is unclear. Evidence from Ms. Mather in the previous appeal in this matter indicated that by allowing the potential filling of the commercial properties along Bridge Street for a distance of 220 feet from the road would allow the placement of between 60,000 and 70,000 cubic metres of fill.

Similarly, the tribunal was left with the impression from the previous hearing that no fill was to be allowed with the allowable development in the Marsh pursuant to the Special Policy - essentially that construction be elevated, with elevated electrical panels. The tribunal even went so far as making findings to that effect, based of the evidence heard, which did not indicate that any fill would be tolerated by the LSRCA. It is now clear from the evidence of Mr. Hogenbirk that placement of fill **is indeed allowed** for new or replacement construction. However, this allowable placement of up to a foot of fill is essentially hidden behind the Special Policy for the Holland Marsh Dyked Areas, as it is not specifically stated. This *hidden* allowable placement of fill, with permission, is also suggestive of the LSRCA being aware of

some available flood storage capacity which it has not dealt with openly in its Special Policy.

In his submission, Mr. Hill asked the tribunal to stand by its comments in the earlier dismissal of the appeal at page 41, where it states that accessory structures built pursuant to paragraph 9(c) of the Holland River Dykes Area Special Policy must be constructed without the addition of fill. As stated in the immediately preceding paragraph, this statement is not an accurate reflection of the way the LSRCA applies the Special Policy. It is the evidence of Mr. Hogenbirk that the provisions of the Special Policy are routinely applied to allow the placement of up to a foot of fill for new or replacement construction, graded away from the structure. Therefore, the tribunal finds that it cannot stand by its earlier understanding and application of the LSRCA policy that no fill be allowed, as that statement does not jibe with the LSRCA's own practices in such matters.

In finding that subsidence is a factor at work in these unique lands, the tribunal finds that the LSRCA Holland River Dykes Area Special Policy does not address the issue, importance and effect of subsidence. This oversight fails to address the relatively minute annual accumulation of available flood storage capacity within the Marsh.

The tribunal has spent considerable time reviewing the application and in particular the Hydraulic Review and Supplementary Report (Ex. 4 and 6) prepared by Bak Farm's consultant as well as the Engineering Report (Ex 8) prepared by Tom Hogenbirk on behalf of the LSRCA.

Of interest in these reports is the technical analysis. At page 2 of the Hydraulic Review, commencing at the second last paragraph:

Regional Storm floodlines in the Bradford March are dictated by water levels in Cook's Bay in Lake Simcoe during this [regulatory storm] rare flood event. Lake Simcoe creates an extensive backwater area upstream along the Holland River inundating an area of roughly 6,000 ha. Flood levels in this area vary by only 0.02 m, thus confirming the backwater nature of flooding in the marsh. ...

and commencing with the last heading found at page 10:

7.1 Loss of Storage

Based on a review of the policies, the October 22, 1993 application, and the nature of the floodplain, we conclude that:

- o **this is an insignificant amount of fill and hence loss of storage in the marsh floodplain.** A review of floodplain maps indicates that the floodplain backwater area is roughly 15,000 m long and on average, 3,000 m wide. The past filling of a 4,600 m² area on the Bak lands is insignificant related to the large floodplain area (6000 ha) it is located within. The site is 0.008% of the backwater area. This filling represents less than 0.01% of the floodplain storage in the backwater area.

- O **the proposed filling will not increase flood levels in the Marsh.** No measurable change would result from filling since the site is located within the fringes of the very large Cook's Bay backwater area.

Backwater flooding conditions are often created upstream of river mouths or river crossings where a downstream water level, either artificially or naturally created, floods upstream lands to a level higher than what would exist if the lake or crossing did not exist. In these areas, the placement of fill will not obstruct flow and increase upstream or downstream flood levels since flood levels are not dictated by the conveyance capacity of the floodplain.

This analysis is contrasted with that of Mr. Hogenbirk:
4.0 Walter Bak Farms - Morris Road

The subject property is located in the Bradford Marsh, west of the North Drainage Canal and just south of Highway 11. This land is part of the external flood plain system as described in 3.1.2. above. Therefore, this area will flood to an estimated elevation of 219.8 prior to flows from the North Canal spilling southeast into the Holland Marsh polder. The Regional flood level at this location would be 220.68 metres and the flood level under 1:100 year conditions would be 219.85. The Regional flood level within the Holland Marsh at this location was calculated by Cumming Cockburn to be 217.69 metres which is almost 3.0 metres lower than the flood level at Walter Bak Farms.

The main effect of adding fill within this area is that it will remove available storage within the flood plain. If compared to the storage capacity of the entire Holland Marsh, the loss in storage caused by the filling of this one property would appear to be insignificant. However, the flow dynamics of the canal system could become seriously altered if filling of these external flood plain areas is allowed to occur.

As described in 3.1.4 above, flooding of the internal dyke system occurs once the external flood plain storage is used up. If the external flood storage is eliminated, the canal flows will spill into the Holland Marsh polder on a much more frequent basis. This would increase the pumping requirements of the Bradford Pump Station, increase the possibility of flooding in the Holland Marsh and increase the likelihood and severity of dyke overtopping.

No specific analysis of the effect of filling part or all of the subject property has been done. However, given the potential for flooding in the Holland Marsh, it is not unreasonable to look at the cumulative effect of loss of storage in this location, rather than on an individual basis.

The cumulative impact of filling in this area would be increase the likelihood of overtopping of the internal dyke on the southeast side of the North drainage Canal. This will not only cause spills to occur over the Marsh polder lands on a more frequent basis but also possibly endanger the stability of the internal dykes themselves.

The 85.8 hectare flood plain where the subject property is situated is part of the Bradford Marsh and is one of the major flood storage areas for the North Drainage Canal. ... Complete filling of the 2.75 hectare Bak property would eliminate an estimated 3.2% of the available storage within this flood plain.

The analysis of Ms. Mather is found to be somewhat unhelpful, as she states that the backwater effect will inundate an area of 6000 hectares. This does not provide useful information as to the impact of the filling in the immediate vicinity, namely the Bradford Polder. The significance of the flooding is its impact on the fragile engineered dyke system.

Analysis of Mr. Hogenbirk's figures on loss of storage cited in the last paragraph quoted reveals that the estimated elimination of available storage area in the flood plain within the Bradford Marsh is selective, designed to put the figures in their worst possible light, rather than being of assistance to the tribunal. is found to be a less than informative calculation.

The proposal under consideration would involve two tiers. The higher tier of 0.8 hectares which would have sufficient fill on previously existing grade (prior to the placement of illegal fill) to achieve a height 0.3 metres less than the crown of Morris Road. A crude examination on Plan 1A to the Hydraulic Review (Ex. 4, and also Ex. 14) on the subject lands beyond the proposed filling suggests that existing elevations may have ranged from 218.3 to 218.5 metres. The proposed new elevations range from 220.0 to 219.5 metres. This suggests a range of between 1 and 1.7 metres of fill to be placed.

The tribunal has extended Mr. Hogenbirk's estimates to disclose additional and more useful information. This calculation does not disclose volume of lost available storage, but merely the area of loss, then reduced to a percentage. Mr. Hogenbirk's figures are based on filling the entire 2.75 hectare Bak property, which in fact corresponds more closely to the previous application which proposed placement of 44,000 cubic metres of fill. The percentage of loss is cited of an area, when the difference between the proposals, as well as any absolute loss in storage capacity, can be accurately reflected only in volume.

Based upon the size of the upper tier of 0.8 hectares, and relying on Mr. Hogenbirk's estimate of the size of the Bradford Polder of 85.8 hectares, this is calculated as 0.93 percent loss of area which may also incur a near but not total loss of volume of storage capacity. It is noted that the area cited for the Bradford Polder differs as between Mr. Hogenbirk and Ms. Mather, who has estimated the area to be 115 hectares. Again, calculating 0.8 hectares on the basis of a 115 hectare polder can be described as a 0.696 percent loss of area which may also correspond to near but not total loss of volume of storage capacity.

The matter of near but not total loss of storage volume is illustrated as follows. The floodline elevation for the regional storm has been calculated by Mr. Hogenbirk to be 220.68, so that the proposed filling of this 0.8 hectare portion of the Bak lands would still incur flooding depths of up to 0.7 metres. Translated into available flood storage, 0.8 hectares would be 8,000 square metres, multiplied by 0.7 metres would equal 5,600 cubic metres of flood storage availability remaining on the lands which would receive the majority of the fill.

Similarly, the remaining area of between 1.6 to 1.9 hectares of the proposed site, would see some filling, albeit of depths commencing at approximately 0.3 metres and graded to zero. Although it is not intended that the filling on this second tier should be uniform, for purposes of calculation, the available flood storage lost is calculated to range from 4,800 to 5,700 cubic metres [1.6 hectares = 16,000 square metres x 0.3 m depths = 4800 cubic metres. 1.9 hectares = 19,000 square metres x 0.3 m depths = 5,700 cubic metres].

Relying on the figures supplied by Dr. MacDonald, subsidence being 1.1 cm. per year (to be adjusted downward for uncertainty as well as declining due to mixture of clay with organic muck) and Sheet 53 of the Flood Plan and Fill Regulation Line Mapping of the Holland River and its Tributaries (Ex. 10) which is dated August, 1984, the tribunal will calculate the

total subsidence within the Bradford Polder since August, 1984 to the date of the hearing, being approximately thirteen years. The resulting figure will provide an estimate of additional available flood storage capacity. Calculations are based upon both Hogenbirk's and Mather's evidence of area within the polder.

For purposes of this calculation it is recognized that 1 hectare = 10,000 square metres; and 1 metre = 100 cm. Therefore,

115 hectares = 1,150,000 square metres

subsidence of 1.1 cm/yr = 0.011 m/yr x area of 1,150,000 square m = 12,650 cubic m/yr.

12,650 cubic metres/yr x 13 years = 164,450 cubic metres

Alternatively,

85.8 hectares x 10,000 square metres = 858,000 square metres

subsidence of 1.1 cm/yr = 0.011 m/yr x area of 858,000 square metres = 9,438 cubic metres/yr

9,438 x 13 years = 122,694 cubic metres

On the basis of extreme caution, these figures are reduced fully by one third, so that in the 115 hectare polder there would be 109,633 cubic metres of available flood plain

storage not considered within the floodplain model. In the 85.8 hectare polder there would be 81,796 cubic metres of available flood plain storage not considered within the floodplain model.

Of this, according to evidence given by Ms. Mather in the last hearing, the Bridge Street Commercial Special Policy Area, if fully utilized, would take up between 60,000 and 70,000 cubic metre of fill. This would allow a range of between 29,633 and 39,633 cubic metres of storage, if Mather's evidence of area is correct, and 11,796 and 21,796 cubic metres of storage, if Hogenbirk's evidence of area is correct.

Given that there are roads, buildings and indeed a small part of a subdivision located within the polder, all of the lands under which is unlikely to incur subsidence due to not being actively farmed, or otherwise exposed to air and oxidation, the tribunal finds that its calculation for the lesser polder area, adjusted to reflect subsidence at less than the level provided by Dr. McDonald, is the lesser approximation of 81,796 cubic metres. This means that between 11,796 and 21,796 cubic metres of storage are available which were not taken into account in the drawing of the floodline elevations.

Accessory Uses "Essential" to Agriculture Operation

The LSRCA has developed its own policies with respect to the areas under its jurisdiction, which encompasses its Special Policy for the Holland River Dyked Area. The opening paragraph of the Special Policy, prior to paragraph 9, states:

This policy applies only to those dyked areas along the Holland (Schomberg) River. The Authority recognizes these areas to be unique agricultural lands. It may permit a limited amount of development provided that such development is essential to the continuation of the agricultural operation.

It has not been disputed that with the Special Policy, the LSRCA recognizes the uniqueness of the area in relation to agriculture, within in which application of the general policy with respect to building within the floodplain will be relaxed. The provisions under paragraphs 9 a) and 9 b) extends such relaxing of its standards so that the requirement requirements of no upstream or downstream impacts due to increased flood levels in the case of new dwellings, replacements and additions and similarly the dry access requirement of the general policy for replacement or additions to dwellings not be applied.

The tribunal recognizes the prudence on the part of the LSRCA to adapt its otherwise strict policies concerning development in floodprone lands to acknowledge the vital role the marshlands play in the region's economy, to the vast contributions to agricultural output in the province and the less than strict compliance with floodplain planning principles to ensure the areas continuing viability. Therefore, while not normally even a consideration in conservation authority appeals, the economic element is brought into the equation by the Special Policy and the LSRCA itself.

Bak Farms has requested that the Special Policy be construed to permit the placing of the requested fill on the facts of this case, namely that the Baks own or farm a substantial portion of the Bradford Marsh, that their family has done so for over 50 years and that the recognition of ancillary uses should be applied to recognize the proposed use as essential to the operation.

Bak Farms is seeking to be allowed to retain the 7300 cubic metres of fill placed illegally prior to the first application, which would be redistributed over the 2.7 hectare property. Mr. Hill pointed out that the Special Policy implies that the criteria in paragraph 1 of the General Policy, excepting those provisions of dry access and no impacts must be met. Paragraph 1 a) sets out that the building site be subject to less than one metre of flooding under the regulatory storm conditions, which Mr. Hill has suggested must be met prior to the placing of fill. This is not stated directly in paragraph 9 c). Rather, it is silent as to the provisions of **any** of paragraph 1's applicability to proposed accessory structures.

The Special Policy delineates that it may permit a limited amount of development where it is **essential** to the continuation of the agricultural operation. This permission is discretionary. The Special Policy goes on to recognize accessory structures which relate directly to agricultural operations. The uses proposed by Bak Farms have been found to be included within the meaning of accessory structures.

Ms. Mather gave evidence concerning the need for Bak Farms to modernize its operation. Indeed, it was apparent during the Pre-Hearing Conference that the existing facilities are tired, worn out and have outlived their usefulness. Nonetheless, the existing facilities continue to limp along at marginal rates, incurring spoilage and achieving relatively marginal output. The facilities have every appearance of needing replacement. The tribunal finds that it accepts the evidence of Ms. Mather, notwithstanding that it has not heard directly from Mr. Bak in the course of this hearing, that it is imperative that the operation be modernized through reconstruction and updating.

That the timing of the proposed replacement coincides with changes in consumer demand in the wholesale and retail marketplace is found not to be within the control of Bak Farms. The tribunal accepts that consumers require greater value-added to the produce which they purchase. This is apparent from a trip to the produce section of any local supermarket. Packages of specialty salads - washed, torn and ready for dressing can be seen as can peeled and uniformly cut potatoes, stored in bins of water. Similarly, the tribunal is persuaded that there is a market for ready-made carrot and celery sticks.

All of this preparation involves at least one step's removal from the simple air drying or surface washing of vegetables which has been the norm in recent decades. The tribunal finds that it accepts Bak Farm's position that preparation of its produce in like manner would ideally be an integral part of its agricultural operation.

One of the elements in whether the operation can be considered essential is proximity. A farmer, dealing with his produce to ready it for market does not want to be faced with additional transportation costs or awkward traffic problems - he needs to be able to do what he would consider the bare minimum within his own backyard, and this location on Morris Road is recognized as just that for Bak Farms.

The Special Policy recognizes those uses which are essential to the continuation of the agricultural operation. The tribunal finds that Bak Farms has satisfied it that the proposed uses are essential to its continued viability as an agricultural operation. Bak Farms clearly has reached the point where existing operations must be replaced. Their proposed replacement is intended, rather than to simply reconstruct what currently exists, to add value to the produce through expansion of its processes, to enhance the bottom-line return of the farm operation. The tribunal is equally convinced that this must be in close proximity to its growing locations. The tribunal has no difficulty in finding that the proposed updating of the operation is essential to Bak Farms.

Impact of the Proposed Filling on Flooding

The tribunal has been persuaded by Bak Farms that there is a modicum of storage capacity not taken into account by the LSRCA in its modelling and 1984 floodline mapping. Under normal circumstances, outside of special policy areas, a proposal will be considered based upon the fact, which is supported by modelling and mapping, that the threshold for impacts on flooding has been reached or nearly reached. In this way, any additional impact would have to be marginal in order to meet tests of precedent and cumulative impacts or would have to be offset by a balanced cut and fill proposal.

The situation in this matter is different. This is a Special Policy Area for which the considerations are somewhat different from those applying to the One and Two Zone Approaches set out in Provincial Policies. The LSRCA has recognized that the rules within this area will be relaxed somewhat, so long as certain conditions are met. The tribunal has adopted the position of the LSRCA in this respect, but with one exception. The tribunal has been persuaded that the threshold for the Bradford Polder has not yet been reached, due to ongoing subsidence, which has not been accounted for by the LSRCA. This being the case, the tribunal finds that the impact on the control of flooding as put forward by the LSRCA will not take place.

It must be stated that this is an unusual situation. On the most conservative of the tribunal's calculations, there may be 11,796 cubic metres of storage space available, of which Bak Farms is seeking 7,300. This leaves 4,496 cubic metres of available storage before the threshold of the existing mapping is met. Owing to this small amount, it does not appear that even one proposal similar to Bak Farms could obtain approval, without significant and convincing engineering studies and figures.

Access and Egress

It has been stated that this appeal does not stand alone on the matter of safe access and egress. In addition, dry access is not available in either the Holland or Bradford polders.

After seeing the Bradford polder first hand, the tribunal again must comment on how much a world apart it is. It is clear that the evidence shows that the proposed expansion would serve to increase vehicular traffic to the operation. However, there has been no suggestion that this would in any way compare with a large food terminal which forms the basis of a multi-party operation. Rather, it is the intention of Bak Farms to intensify its operation for purposes of creating added value to the produce it grows.

The degree of increase in traffic must be weighed against the existing traffic from the operation which currently enters onto Bridge Street, also known as Highway 11.

This is a major public highway, and clearly removing this vehicular traffic in general would be an advantage, but during a regional storm, having this traffic off of the main road would provide considerable advantage to evacuation, emergency and safety vehicles during an inundating event. Any anticipated increases in farm implement traffic owing to the proposed development are more appropriately located on Morris Road rather than on Bridge Street.

The tribunal has considered the evidence with regard to flooding in a regional storm and is satisfied that the nature of the proposed development is such that any necessary evacuation can take place in a reasonable period of time with the early warning system. Moreover, with the removal of the migrant workers accommodation and the government inspection station, the tribunal is satisfied that the operation is unlikely to incur greater risk than other and more particularly the existing Bak Farms accessory uses within the flood plain.

Much has been said about having the township install elevated reflectors alongside of Morris Road. While the tribunal does not have the power to make this a condition of allowing the appeal, at a minimum, such reflectors should be installed along the 100 metres or so of Morris Road leading from the proposed development to Bridge Street. Ideally, a raised barrier with reflective markers would provide greater assurance of safety during a regional storm event. However, it is noted that the roads which run through the Marsh do not provide similar safety measures to those described. Given that this operation does not involve anyone living within the buildings, it must be assumed that all necessary steps are taken during the normal course of evacuation in a regional storm event.

The tribunal finds that, while dry access and egress cannot be provided here or anywhere else in the immediate vicinity, the depths of flooding on Morris Road, in the neighbourhood of 0.3 metres, will allow most regular and all emergency vehicles to pass. The flood velocities are not considered a problem, due to the width of the floodplain. The tribunal encourages all measures to be taken to ensure safe vehicular passage along this stretch of Morris Road, such as reflectors or raised barriers.

Mr. Hill did offer the comment that to allow the appeal would serve to change the character of the northeast corner of the Bradford Marsh. Indeed, that may be the case. However, the tribunal is satisfied that the facts of this case are perhaps, of all possible scenarios, the best in which to allow this filling to take place. There is ready access to Bridge Street, a matter of perhaps 100 metres. The lands lie on the outer fringes of the Bradford polder. While arguably, the character of the Bradford Marsh will have already changed through the Bridge Street Commercial Special Policy, the current appeal is found to have considerably less impact on the unique character of the marsh lands, than had the filling taken place elsewhere within the heart of the marsh. The northern boundary has already been intensified and commercialized. This proposal recognizes the intensification of value-added to the vegetable growing business. Keeping this accessory farm operation off of the main thoroughfare, while allowing it to remain in close proximity to the margins, with readily available egress, appears to be the best solution for this one-time permission.

Precedent and Cumulative Impact

The tribunal is satisfied that there is insufficient available storage capacity resulting from subsidence to permit similar applications. Therefore, it is not foreseen that there will be cumulative impact on the available storage capacity of this polder which will have the effect of increasing flooding.

Additional Comments

There has been some suggestion throughout the hearing of this matter that the Executive failed to act on the advice of its staff. Mr. Geist relied on the draft resolution which was sent to him by a former member of the LSRCA staff, Dan Frank on October 22, 1993 (Ex. 3, Tab 3). The tribunal has considered this position and finds that little weight can be placed on it. The fact is that Bak Farms and the Executive of the LSRCA were miles apart in their respective positions. Bak Farms initially sought to place additional fill on the subject lands, but the fact is that their bottom line position was to retain the 7,300 cubic metres of illegal fill. The LSRCA Executive, on the other hand, was adamantly sticking to its position that the construction take place with minimal filling (one foot graded to zero) with the main electrical panel above the regional storm elevation.

While it is true that Bak Farms incurred the expense of revising its application twice in an attempt to gain the approval of the LSRCA Executive. However, the fact remains that the Executive is the decision-making body, and the recommendations of staff, if indeed Exhibit 3 at Tab 3 is indicative of that fact, are simply recommendations. An appeal to the Mining and Lands Commissioner in no way functions as a review of the decision of a conservation authority, akin to a judicial review.

The fact of the matter is that the tribunal has found that it accepts the evidence of Bak Farms that there is more storage capacity available in this flood plain at this time than the modelling and mapping suggests. This is evidence that apparently the LSRCA Executive did not chose to accept for its own reasons. There is nothing in the facts of this case to suggest that the Executive behaved improperly towards Bak Farms or led it into anything. The tribunal finds that the gulf between their positions simply could not be bridged.

It should be stated that from the facts in this case, it is clear that Bak Farms made a gamble to push for being allowed to retain its illegal fill in preference to developing a proposal involving raised buildings on pilings. The latter would be more consistent with the LSRCA's policies as they currently exist and are likely to continue to exist after this appeal. It should be stated, however, that the policies could be made more clear with regard to the allowable one foot of fill by being spelled out.

In this case, the gamble paid off, as the tribunal has found that there is available storage capacity in the floodplain for the filling by Bak Farms which preceded the allowing of this appeal. Mr. Bak will be able to move forward with his proposal.

The tribunal is not convinced that every effort was made by Bak Farms to design a proposal which would use minimal fill, according to the ideal situation described by Mr. Hogenbirk. No such effort was made, for the simple reason that the illegal fill was one of the parameters within which the consultants were required to work. The removal of the illegal fill is the economic consideration which would be crippling for Bak Farms. The prior placement of fill has caused Bak Farms to unnecessarily complicate its application process in this matter, not to mention its and the LSRCA's costs of proceedings under the **Provincial Offences Act**.

These comments are made for two reasons. The primary purpose is to discourage prospective applicants in this region from putting forward proposals which do not consider construction of elevated structures. There is much innovative architectural and engineering work in existence which it seems could allow an engineered solution to the flood challenges being faced in the Marsh without the addition of thousands of cubic metres of fill. Such approaches should be exhausted **before** tendering an application such as the one involved in this matter. This avenue remains relatively unexplored on the facts of this case, given that the already existing fill is one of the givens upon which the application is based. In other words, the consultants on behalf of Bak Farms were not directed to pursue the possibility that the proposed construction could take place on pilings, given what was termed the prohibitive costs of removal of the fill in the first place.

The second reason concerns the matter of costs. Mr. Geist has indicated that he wishes to address costs. The power to award costs found in sections 126 and 127 of the **Mining Act** is discretionary. It has been noted elsewhere that this has historically been applied to mining matters, where the tribunal functions as a court (see **Chalmers v. Grand River Conservation Authority**, CA-007-95, November 13, 1997, unreported). Mr. Geist cannot be precluded from bringing a motion for costs, as the tribunal has not heard his submissions on this matter. However, given the facts of this case, and the role of Bak Farms in contributing to the situation of placing fill without a permit, thereby unnecessarily complicating the entire process, the tribunal would discourage him from doing so.

Conclusions

The tribunal finds that the appeal of Bak Farms be allowed on the conditions which appear in the Hydraulic Review (Ex. 4) at page 6, as follows:

1. That drawings be submitted, satisfactory to staff, showing that each building has the main electrical panel located above the Regional Storm flood elevation, and all other electrical equipment not located above the regulatory flood elevation shall be floodproofed where possible, satisfactory to staff;
2. That the topographic survey of the site, of November 4, 1993, be certified by an Ontario Land Surveyor or Professional Engineer;
3. That a grading plan be submitted, satisfactory to staff, showing all proposed grades using existing fill on site below the elevation of 220 metres above sea level (0.3 metres below the crown of Morris Road at the property);
4. That the solicitor for Walter Bak Farms Ltd. provide an undertaking acceptable to the Tribunal and to the Lake Simcoe Region Conservation Authority that Migrant Worker Accommodation and the Government Inspection Station are not included as part of the proposed works;
5. That an agreement which includes a letter of credit or security deposit in the amount of fifty thousand dollars (\$50,000.00) be entered into between Walter Bak Farms Ltd. and the Lake Simcoe Region Conservation Authority prior to February 19, 1999, to guarantee that the grading of the existing fill and proposed construction of agricultural buildings are completed as approved; and
6. As-built drawings shall be submitted to the Lake Simcoe Region Conservation Authority that are satisfactory to staff, prior to the release of the letter of credit or security deposit.

For purposes of clarity, the appeal of the application, as amended as shown on Exhibit 14, dated November 4, 1993, is allowed, permitting 7,300 cubic metres of existing fill to be redistributed on the site, prior to the construction of the proposed farm accessory structures of a processing facility, packing facility, cold storage and shop (one building), air cooled storage and workshop (one building), small show and greenhouse.