

Appeal No. CA 022-92

L. Kamerman)
Mining and Lands Commissioner)

Friday, the 15th day
of July, 1994.

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 VI, Town of Bradford (West Gwillimbury) in the County of Simcoe.

B E T W E E N:

WALTER BAK FARMS LIMITED

Appellant

- and -

LAKE SIMCOE REGION CONSERVATION AUTHORITY

Respondent

ORDER

WHEREAS an appeal to the Minister of Natural Resources was received by the tribunal on December 21, 1992, having been assigned to the Mining and Lands Commissioner (the "tribunal") by virtue of Ontario Regulation 364/82;

AND WHEREAS a hearing was held on February 1 and 2, 1994 in the Commissioner's Court Room, 24th Floor, 700 Bay Street, Toronto, Ontario.

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UPON hearing from the parties and reading the documentation filed;

1. THIS TRIBUNAL ORDERS that the appeal from a refusal of the Lake Simcoe Region Conservation Authority to issue permission for the placement of fill material on Part Lot 190-193, Registered Plan 122A, Town of Bradford (West Gwillimbury) in the County of Simcoe be dismissed.

2. THIS TRIBUNAL FURTHER ORDERS that no costs shall be payable by either party to the appeal in respect of this appeal.

Reasons for this order are attached.

DATED this 15th day of July, 1994.

Original signed by L. Kamerman

L. Kamerman
MINING AND LANDS COMMISSIONER

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REASONS

This matter was heard in the Commissioner's Court Room, 24th Floor, 700 Bay Street, Toronto, Ontario, on February 1 and 2, 1994.

Appearances:

Mr. Marvin S.N. Geist

Counsel for Walter Bak Farms Limited

Mr. Kenneth C. Hill

Counsel for Lake Simcoe Region Conservation
Authority

Preamble:

The appeal before the tribunal to the Minister under subsection 28(5) of the **Conservation Authorities Act** concerned the refusal by the Lake Simcoe Region Conservation Authority ("LSRCA") to allow permission to place fill material on Part Lot 190-193, Registered Plan 122A, Town of Bradford (West Gwillimbury) in the County of Simcoe. The application (Ex. 11) for the placing of fill was made by Walter Bak Farms Limited (the "appellant") on October 9, 1992. A hearing was held before the Executive Committee of LSRCA on November 6, 1992 and a Notice of Decision dated November 16, 1992 (Ex. 12) refusing permission was sent to the appellant.

An appeal pursuant to subsection 28(5) of the **Conservation Authorities Act** is to the Minister of Natural Resources. The Mining and Lands Commissioner (the "tribunal") is appointed by virtue of subsection 6(1) of the **Ministry of Natural Resources Act**. The Minister's authorities, powers and duties are assigned to the tribunal by Ontario Regulation 364/82. Pursuant to subsection 6(6) of the **Ministry of Natural Resources Act**, Part VI of the **Mining Act** applies to the hearing of appeals, with necessary modifications.

Background:

The land which is the subject matter of this appeal, (the "Morris Road site"), is located within the Bradford Marsh, being part of the Holland River Dykes Area. The Holland (Schomberg) River, which flows through the dykes, drains into Cook's Bay in Lake Simcoe. The Morris Road site is within the Holland River flood plain.

This appeal, bearing tribunal file no. CA 022-92, arises from the first of three refusals by LSRCA for proposed filling of the Morris Road site. Walter Bak Farms Limited (the "appellant") has appealed two of these refusals. The first application (Ex. 11) was considered by the Executive of LSRCA on November 6, 1992. The Notice of Decision (Ex. 12) advising of the refusal was dated November 16, 1992. Mr. Bak's subsequent application dated September 24, 1993 (Ex. 16) was considered on October 22, 1993 by the Executive, as evidenced by the

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minutes of that meeting (Ex. 18). The third application was considered by the Executive on November 5, 1993, as evidenced by the minutes of that meeting (Ex. 20). An appeal from the decision made on October 22, 1993 bears tribunal file no. CA 009-93, and will be considered only in the event that the appeal currently under consideration is not successful.

The current appeal involves the placing of 44,000 cubic metres of fill to an average depth of two metres to accommodate a processing facility, packing facility, cold storage building, machinery repair shop, government inspection station, greenhouses and three buildings for the housing of migrant workers.

The scheduling of the hearing was to accommodate a hearing in Provincial Court on February 16, 1994, where the illegal placement of fill was at issue. After hearing all of the evidence in this appeal, the tribunal indicated that it was not able to meet the time constraints imposed, but that upon initial review, it would not allow the appeal for several reasons associated with the placement of dwellings for migrant farm workers. (Reasons for this will be reproduced in full below.)

Mr. Geist indicated that the appellant was willing to withdraw the proposal for temporary dwellings for migrant farm workers and allow the tribunal to further consider the appeal in connection with the other buildings proposed. Mr. Hill indicated that his client was willing to proceed on this basis, as it had already refused two other applications which involved the placing of substantially less fill than the current application and did not propose temporary housing. The tribunal agreed that there would be no point in requiring the appellant to make a fourth application in light of the three refusals which had already occurred.

The Morris Road site is located within the Town of Bradford, west of the North Drainage Canal which forms one side of the Holland Marsh polder. The water which once flowed through the Holland River is diverted to two drainage canals, being the South and North Drainage Canals, which are dyked on both sides, so that potential flood waters in a severe storm event, such as the regional storm, will overtop the outside wall of the dyke in preference to a higher inner dyke wall. The Morris Road site is located in what is called the Bradford Marsh and is located on the outside of the lower wall of the North Drainage Canal.

The Notice of Refusal of the LSRCA Executive, dated November 16, 1992, in connection with the November 6, 1992 hearing of the first application (Ex. 24, Tab 8) states:

The Executive Committee felt that the control of flooding would be affected due to the following reasons:

Your proposal to place fill on this 6.8 acre lot over an area of approximately 2.5 acres next to Morris Road would cause a loss of storage capacity from the floodplain. The grade of this property is generally at 218.5m above sea level which is 2.1 metres below the Regional Storm flood elevation of 220.6 metres above sea level. The loss of storage capacity from the floodplain will cause an increase in the flood elevation as it accumulates due to the displacement of the floodwater by the fill.

A second concern is the fact that this site does not have safe access or egress since the height of Morris Road is below the Regional Storm flood elevation. Consequently, in the event of an emergency such as a fire, there is potential for loss of life or greater property damage since the dyke road would be under water by 0.3 to 0.6 metres and a depth of water greater than 2 metres on either side of this one lane road.

Issues:

1. Is the loss of floodplain storage which results from the proposed filling of sufficient magnitude that the appeal should be dismissed? Should its location at the fringe of the floodplain, being well removed from the main channel, be a factor in the decision?
2. Would allowing of the proposed filling and similar applications have a cumulative impact on flood level elevations within the floodplain or is the application sufficiently unique that it will not create a precedent for the filling of other sites?

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3. With access via Morris Road being inundated by 0.3 metres of water in a regional storm, can there be safe access?

4. In light of the LSRCA's Watershed Development Policies for the Holland River Dyked Areas, are there special considerations which should be applied to the appeal?

Witnesses:

Nancy Ruth Mather, P. Eng., a principal of Cosburn Patterson Wardman Limited, gave evidence on behalf of the appellant.

Thomas George Hogenbirk, P.Eng., a conservation engineer with LSRCA gave evidence on behalf of the respondent.

Evidence:

Ms. Mather has 14 years experience, specializing in water resources issues, and was recognized by the tribunal as an expert witness in this regard. It was clarified that her past experience did not extend to the Holland Marsh area.

Ms. Mather indicated that she had been retained in August, 1993 to review and comment on the fill permit application which had been made and refused in 1992, and was involved in discussions with LSRCA on the two 1993 applications.

Ms. Mather or members of her firm attended the site at least five times in preparation of their report and recommendations on the subject lands (Ex. 25), dated December, 1993. The Bak family has been farming in the Bradford Marsh area since 1945 and has grown to be the largest producer of vegetables in the area. Initially, the operation was comprised of growing, processing and selling vegetables such as onions, parsnips, celery, beets, lettuce and radishes from seed.

The current site of the Bak processing operation is located on Bridge Street, also known as Highway 11. The Bridge Street site consists of six acres and 13 buildings and has been developed to capacity, having grown and evolved to meet the

demands of the Bak farming operation. Mr. Bak wishes to expand his operation to meet demand, while staying competitive. To do so, he needs a larger more efficient operation, which cannot be accommodated at its current location.

The existing farm operation, all of which is supported from the 6 hectare Bridge Street site, is in excess of 280 acres. 150 acres of the Bak operation are within the Bradford Marsh, with other sites in Cookstown and in the Coburg Marsh which is located at the north end of Bathurst Street.

The Bridge Street site has 27,000 square feet of greenhouses, 21,000 being under glass and 6,000 under plastic. Several million seedlings are started annually, with the eight types of vegetables grown. Flowering plants are also grown for the planting season, such as geraniums. When they are ready for transplanting, local and migrant farm workers are hired.

Vegetables grown at the various Bak farming locations are brought on pallets to the Bridge Street site for processing and sale or storage. When not in use, pallets are stored either at the Bridge Street or the Morris Road site. The vegetables are then stored in a storage building on the Bridge Street site or in rented storage in Bradford until they are sold or processed. There is not sufficient storage at the Bridge Street location to provide adequate storage for the operation. 400 pallet boxes are used per year requiring over one acre of storage. Several challenges are faced in the storage of pallet boxes. They constitute a fire hazard and must be divided. They cannot be piled too high if they are to remain safe. They are at considerable risk to damage if stored in the flood plain.

Vegetables are either sold fresh or processed. Processing consists of washing, peeling and removing of defects. By way of example, carrots are shredded, packaged and sold to suppliers for use in baking products. Processing takes place in a building at the Bridge Street site which was designed for storage, and as such is too short to have all processing completed along one uninterrupted line. The necessary retrofitting has required that produce be transferred on the conveyer belts, which run the length of the building. As a result, unnecessary spoilage is experienced.

The appellant wishes to expand the scope of the operation to include further processing of produce. The market is such that the demand for pre-processed foods is growing. An example of this is the processing and packaging of carrot sticks or diced carrots. In order to

accomplish this, the operation must expand and upgrade its current facilities.

The appellant employs migrant farm help in April and July to help in the fields. Currently 120 are employed, although the number can reach as high as 200. There are three trailers on the Bridge Street site to provide some migrant farm worker accommodation.

The shop store is where equipment is repaired, which is also used for equipment storage. There is also a commercial outlet open to the public.

Ms. Mather stated that the purpose for the applications arises from Mr. Bak's knowledge that his buildings are out-of-date and inefficiently designed. The desired improvements would also expand the market for Bak produce. In pursuing this plan, Mr. Bak has concluded that the Bridge Street is not suitable as there is no room for the proposed expansion.

The Morris Road site, comprised of 6.8 acres located very close to Bridge Street, was chosen for a number of reasons:

1. The land is owned by the appellant.
2. It is close to the existing commercial outlet and other farm land owned by the appellant.
3. The land has been part of the Bak farm operation for the last 30 years.
4. Being part of the first land in the marsh to be farmed, it has become marginal, due to subsidence, and is unlikely to continue to produce. The proposed placing of fill and construction is the best use for the site.

1/2 acre of the subject lands was filled many years ago. In 1992 additional fill was placed on the land without a permit and a Notice of Violation was issued.

Referring to tab 9 of Exhibit 24, Ms. Mather referred to a letter to Casimir Bak dated March 2, 1993 from Ross W. Irwin, an agricultural engineer and former faculty member at the University of Guelph, which is reproduced in part below:

My qualifications for making this estimate is based on personal research of the hydrology and water resource regime of the Holland Marsh area from 1958 to 1985. A major aspect of this research was a monitoring program of surface soil subsidence of the marsh area. A secondary aspect of the project was to estimate the original surface elevation of the marsh and determine the total loss of elevation with time. The results of the work on subsidence is to be found in the Canadian and foreign scientific journals.

The small 200 acre Bradford Marsh was established as a separate scheme within the Town of Bradford due to a misinterpretation of the Municipal Drainage Act at the time. A petition was presented to Bradford Council, July 27, 1925, after A.E. Baird had made a preliminary study of the area.

Water stood about 3 to 4 inches deep on the surface of the Bradford Marsh before it was pumped out in 1926. A few potatoes, planted in July, were harvested from this marsh the Fall of 1926. A considerable acreage of vegetable crop was planted in 1927.

The topographical survey map and drain profile drawn by Baird in 1925 exists but cannot be used as the established bench mark has long since disappeared.

What I give below is a reconstruction of the original surface elevation based on my previous subsidence investigations. These included Anrep's investigation of peat deposits and his map of the Holland Marsh of 1912. I use the English scale of measurement.

It is my opinion, based on my previous work, that the original surface elevation of the subject property was about 723 feet above sea level.

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The special survey you commissioned, by Precision Construction Services, Toronto, dated November 23, 1992, indicates the present average surface elevation of this property to be 218.5 metres (716.85 feet) above sea level. This represents a loss of surface elevation due to subsidence of 6.15 feet over 65 years.

The volume of soil lost to subsidence and other causes over the period was 1,679,945 cubic feet. There is only about 227,600 cubic feet of high density organic soil remaining which is not of sufficient depth for commercial vegetable growing.

Mr. Hill stated that he was prepared to accept the evidence of Dr. Irwin on subsidence without calling him as a witness. However, it is the impacts on the floodplain mapping as a result of the subsidence which remains an issue.

Ms. Mather also referred to a letter from the Ontario Ministry of Agriculture and Food, dated November 30, 1992, (Ex. 14) where Mary Ruth MacDonald states:

The area of land that you own on Morris Road in Bradford is in the part of the Holland Marsh that was first developed for agriculture in the late 1920's. This area is drained by ditches rather than by tile drains.

Research conducted at the Muck Research Station several years ago showed that the rate of subsidence of organic soil that is drained with ditches is approximately 1.1 cm/year (about 0.44 inches/year). You indicated that you have a study that says there was 11 inches (27.5 cm) of organic soil in this field in 1972. Therefore, there should be only about 3.3 cm (1.3 inches) of organic solid left. Of course, this soil will have been mixed in with the underlying clay subsoil, through cultivation. The clay subsoil does not provide a good growing medium for muck vegetables. If it is necessary to determine the exact amount of organic matter left in the soil, this can be done through a routine soil test.

Low organic matter and poor drainage makes this land less suited for the production of muck vegetables than the nearby organic soil that has an organic matter content of 50 to 95%.

On file, at the Muck Research Station, there is a portion of a report that identifies this area as having less than 36 inches of organic solid (the lowest rating). Unfortunately, there is no date on the portion that we have. There is another report titled (sic) "Soil Subsidence of the Holland Marsh", a technical publication #126-34 of the School of Engineering, that mentions some early surveys that measured the depth of organic soil in this area. This report was prepared by Prof. R.W. Erwin (sic) of the School of Engineering, University of Guelph.

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Local processing of the vegetables produced in the Holland Marsh is very important to maintain the economic viability of the vegetable industry. Thus, I'm delighted to hear that you will be processing vegetables in this area. The proposed location seems reasonable. It makes more sense to locate a processing plant on this marginal land, close to the source of the vegetables, that to put it on productive agricultural land.

Ms. Mather referred to a letter from Art Janse, Chief Building Official with the Town of Bradford, West Gwillimbury, dated November 5, 1992 (Ex. 10) wherein he states:

I am responding to your submitted proposal to increase your processing facilities and support infrastructure i.e. loading area, storage space, etc.

We have no problem with the placement of fill for the storage of equipment and pallet boxes within the dyke controlled area.

If any buildings are to be placed in this area, they will have to meet the requirements of the Ontario building code at that time.

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Based on the above noted four factors, Mr. Bak arrived at the conclusion that the Morris Road site is ideal for the purposes proposed.

Ms. Mather described the flood conditions of the existing and proposed sites as both being in the outer reaches of the fringe of the Schomberg River. The floodplain, as can be seen from the mapping, is very wide in the vicinity of the Morris Road site. The flood elevation is 2 metres deep at the Morris Road site and 1 to 2 metres deep at the Bridge Street site.

The South Bradford Marsh, in which both of the Bak properties are located, was referred to by Ms. Mather as a pocket not unlike a bathtub. The Holland River dyked areas are man-made, which results in protection of some portions of the floodplain and flooding of others. Further upstream, the Schomberg River is split into the North and South Canals, the former of which flanks the South Bradford Marsh. On either side of the canal are dykes which contain the flood waters of the canal. As the north side of this dyke is lower than the south side, in a regional storm water will rise to the north dyke level, overtop and then fill the South Bradford Marsh until the level of the south dyke is reached.

Bak's Bridge Street site is located within a Special Policy commercial area. The relevant portions of the LSRCA Water Development Policies (Ex. 3), including the Special Policy provisions are reproduced:

GENERAL DEVELOPMENT POLICIES

Floodplain management is not an exact science, and while the Authority's activities, in reviewing applications for development within the floodplain are guided and limited by the above, it is recognized that the Authority Executive does have some discretionary powers in the review and approval of development applications within the floodplain.

1. Policy for New Dwellings

It is the general policy of the Authority to discourage all development within the floodplain. The Authority shall, however,

review all applications for such development. In reviewing these applications the Authority shall have regard for, but shall not necessarily limit itself to, the following criteria:

- (a) That the building site be subject to less than one metre of flooding under regulatory storm conditions.
- (b) That the building site be subject to less than one metre per second of flow under regulatory storm conditions.
- (c) That the building site have dry access to lands located above the regulatory flood elevation.
- (d) That the habitable areas of new dwellings and additions be floodproofed to the satisfaction of the Authority. The walls of habitable areas must be capable of withstanding the hydrostatic effects of the regulatory flood and foundations supporting these walls must be appropriately designed and constructed for flood conditions.
- (e) That there be no significant increase in either upstream or downstream flooding. Cut and fill techniques will be given consideration in this regard.

2. Policy for Accessory Structures

In reviewing applications for accessory structures, the Authority will normally have regard for all the items outlined in policy 1. The Authority Executive, in making its decisions, will give consideration to the fact that there will be no habitable areas contained within these structures.

3. Policy for Replacements and Additions

Replacement of and additions to residential structures within 13

the floodplain may be permitted provided that the requirements of criteria 1 (a), 1 (b), 1 (d) and 1 (e) are met to the Authority's satisfaction.

4. Policy for Floodproofing

Floodproofing, if required by the Authority, shall be to the regulatory flood elevation established by the Ministry of Natural Resources.

5. Policy for Fencing

Permits for fencing may be granted by the Authority provided that the proposed fencing will permit the free flow of water and does not interfere with the watercourse.

6. Policy for Consent

While the Authority will normally discourage the creation of new lots within the floodplain, it recognizes that there may be situations where some development may be acceptable under specified conditions. In these cases, it will request Land Division Committees and Committees of Adjustment to make their consent conditional upon the applicant being able to satisfy the requirements of the South Lake Simcoe Conservation Authority.

In the event that the Authority's conditions are not suitably reflected in the Committee decisions, the Authority may then pursue the matter further under the provisions of the Planning Act, R.S.O. 1983.

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SPECIAL POLICY FOR THE HOLLAND RIVER DYKED AREAS

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 to occur in these areas provided that such development is essential to the continuation of the agricultural operation.

9. a) New Dwellings: Due to the nature of flooding that occurs within the dyked areas, policy 1 (e) of the general development criteria will not apply. All other criteria must be met to the Authority's satisfaction.
- b) Replacement and Additions: Recognizing that some of the existing dwellings do not presently have dry access to lands above the regulatory flood elevation and the nature of flooding that occurs, policy 1 (c) and 1 (e) do not apply to additions or replacements within the dyked areas. The Authority will, however, encourage the highest standard feasible for protection against flooding.

The floor area of replacements and additions to dwellings will be limited to the minimum floor area permitted by the by-law of the local municipality, notwithstanding that where an existing dwelling is destroyed by causes beyond the owner's control, reconstruction on the original foundation may be permitted provided that there is no increase in building size or habitable floor area.

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

- d) Temporary Greenhouses: The Authority recognizes the practice of some Marsh farmers of erecting temporary greenhouse structures during the Spring planting season. These structures consist of temporary forms over which flexible plastic sheeting is laid. Since such temporary structures are of little concern in the event of a flood, it will not normally be a policy of the Authority to require permits for these temporary structures, provided that a copy of the building permit, along with pertinent information regarding the structure, is forwarded to the Authority for information purposes.

A Special Policy Area was considered for Bridge Street, Highway 11. In a memorandum dated March 20, 1990 addressed to Basil Noels, Chief Administration Officer from Reinie Vos, Manager of Policy and Planning (See Ex. 24, Tab 6), the following information was discussed and recommendation was made:

As a result of an application by Joe Greco and Anthony Graziano to expand the Oak Ridges Market, staff were directed to prepare a development approach that could be uniformly applied along the south side of Bridge Street in the Town of Bradford. At the present time three of the existing properties on the south side of Bridge Street are zoned commercial. It is anticipated that much of the existing frontage along the south side of Bridge Street will be redeveloped.

The existing commercial zoning extends 225 feet back from Bridge Street. An interior canal ditch exists approximately 405 feet from Bridge Street. The Oak Ridges Market redevelopment proposal suggests the extension of the commercial zoning designation to this interior ditch. On reviewing this matter internally and discussing the situation with Mr. Alan Pinard, the Town of Bradford Planner, staff can not accept this suggestion without some qualifications.

It is suggested that the following criteria be applied to all redevelopment

proposals within the areas designated on Schedule "A" attached:

- 1) That there be no residential use permitted within this area.
- 2) That all redevelopment activity be restricted to the first 220 feet of the lot and be floodproofed to an elevation of 724 feet C.G.D.
- 3) That the Authority support commercial use of the remaining area to the existing drainage ditch providing that the commercial use is restricted to parking only and that the parking areas are constructed at grade (i.e. no fill) and that a 50 foot landscaped buffer is maintained adjacent to the ditch.

RECOMMENDATION:

- 1) **That the criteria detailed in this report be universally applied to all development, redevelopment or rezoning applications in the area along the south side of Bridge Street in Bradford, detailed on Schedule "A".**
- 2) **That a copy of this report be forwarded to the Town of Bradford.**

On April 10, 1990 the Executive Committee of the LSRCA passed the following resolution (Ex. 24, Tab 7):

EX-90-64 **RESOLVED THAT the staff report No. 5-90-ex regarding the development approach along Bridge Street, Bradford, be received; and**

THAT the recommendations contained in the report be accepted as a development policy for Bridge Street in Bradford from Dissette Street to the east boundary of the Town.

Ms. Mather gave evidence that the Bridge Street Special Policy would permit fill of between 60,000 to 70,000 cubic metres within the area, as long as it is restricted to the first 220 feet and buildings are floodproofed to the elevation of the regional storm. Photographs of the area show how fill has been placed, sloping away to the south.

Ms. Mather described the floodplain conditions in the area. The vicinity is flat, with little construction. The roads are elevated one to three metres above the surrounding lands, but remain flood susceptible. This applies to Morris Road as well as Bridge Street. Although Morris Road was reconstructed within the last year, it remains flood susceptible. Homes, barns and other types of buildings are located on fill within the floodplain but below the level of the adjacent roads. Along Morris Road itself, there appear to be a dozen or so homes on the south side, several of which appear to be new. There is also one home on the north side of Morris Road which appears to have just been built.

Ms. Mather stated that Dr. Irwin's soil subsidence observations demonstrate the unique and dynamic nature of the marsh lands which, as a result of agricultural practices, have lost 6 1/2 feet of elevation in the past 65 years. Through cultivation of the land, the peat soils oxidize and disappear. Ms. Mather pointed out that through a lowering of the elevation of the land due to subsidence, there is increased flood storage capacity within the floodplain.

Ms. Mather described the facilities which are contained within the proposed application (Ex. 24, Tabs 1 & 2) as a new production facility, cold storage building, celery and carrot production facility, work shop, greenhouses, housing for migrant farm workers, government inspection station, storage area for equipment and pallet boxes and general yard space. The site would also have room for future expansion. Many of the existing functions currently housed at the Bridge Street location would be moved to the Morris Road site.

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The proposed site abuts Morris Road and would be at the same elevation. The fill would reinforce the dyke formed by the road, which is elevated above the south marsh. The total volume of fill in the proposed application is 44,000 cubic metres, which would cover the site to a depth of two metres.

The proposed fill was calculated to be approximately 2.3 percent of the floodplain within the bathtub area formed on the west side of the canal, being a total area of 115 hectares. The impact on the flood elevation level would be 1 1/2 inches in each of the 1:100 year and regional storms, which pre-existing flood elevations levels being approximately two metres.

The filling of the proposed site would occur within the outer fringes of the floodplain, a distance of at least 430 metres from the canal. Therefore, there will be no constriction of flows in the canal. Velocities in this area, which acts as a ponded area, are low, so that ingress and egress will not be negatively impacted.

Ms. Mather commented that the Special Policy for the Dyked Areas allows for some development and associated filling, which suggests that there is recognition that development could not occur without some loss of storage capacity. The precedential value and cumulative effect of the proposal was quantified for the tribunal. Mr. Bak currently owns or leases 70 percent of the land within the bathtub area. Based upon the calculation that 70 percent of the land requires 6 acres filled for processing of its produce via allowable accessory uses, the remaining 30 percent would require no more than 2.6 acres for processing. The additional filling of this projected 2.6 acres is 20,000 cubic metres. This would be a total of 3 percent of the bathtub which would be filled on the basis of the precedent created, allowing the farmers to be self sufficient. It was reiterated that the application is unique and should not create significant demand for similar applications.

In Ms. Mather's opinion, the proposed filling would not create substantial slope stability problems within the dykes at this location, although one could expect greater frequency of overtopping due to the proposed filling.

With the incremental increase in flood elevation levels of 1 to 1/2 inches, the change in frequency of overtopping is not viewed as significant. As pumping stations work continuously at various rates, at a maximum it would have to pump an additional 2 1/2 hours to displace a volume of water equivalent to the proposed placing of fill.

Ms. Mather suggested that the proposed development at the Morris Road site is not a new development, nor is it a new commercial, institutional or industrial development. Rather, it is an accessory use as contemplated by Paragraph 9(c) of the Special Policy for Dyked areas and dry access is inconsistent with the policy in this area. As such, the only requirement which should be enforced is having the electrical panels located above the regulatory flood.

Ms. Mather pointed out that new development has been allowed on Bridge Street. Similarly, new housing has been built on Morris Road. None of these other lands have dry access. However, with just over one foot of water, emergency vehicles would have improved access, being the difference between the current 1 to 2 metres of flooding and 0.3 to 0.5 metres of flooding. The absence of large velocities within the flood fringe would not pose a risk to loss of life.

In conclusion, Ms. Mather stated that due to the uniqueness of the area, control of flooding would not be affected by the placing of fill. With the expansion of existing uses on the home base site, there will be reduced risk to loss of life and property because of the replacement of those portions which are currently vulnerable will be replaced and upgraded. She bases this reasoning on the exemption in Paragraph 9(c) of the Policy, with the purposes of relocating and expanding an existing use, providing improved flood protection to existing uses, without causing constriction within the existing channel or increases in canal flows. Ms. Mather reiterated the importance of relocating an existing agricultural use, essential to the success of Mr. Bak's farming enterprise, in an area which has incurred and is likely to continue to incur substantial soil losses.

Under cross-examination, Mr. Hill pointed out that the LSRCA is no longer of the opinion that the subject lands are affected by a backwater effect of Lake Simcoe. Ms. Mather agreed and asked that the tribunal disregard the first two sentences referring to "cumulative effect" on page 12 of Exhibit 25. She then agreed that cumulative effects should be investigated.

Mr. Hill asked what would be done with the land that was to be freed up on the Bridge Street site, which Ms. Mather did not know. It was suggested that the proposal could be part of both a proposal and expansion of the commercial site as well. Mr. Hill suggested that the Bridge Street site could also be filled and, whether or not this is the intent of Mr. Bak, there was nothing to prevent the property changing hands. Mr. Hill suggested that Mr. Bak could move the storage of the pallets to the

subject property without any need for additional filling. Ms. Mather indicated that it was desirable to make the storage floodproof. Otherwise there is potential for damage. Also, distance between pallet storage areas is important for risk to loss in the event of a fire.

Ms. Mather stated that Mr. Bak does not want to renovate the current home base site as there is not sufficient room to create the long lines of belts needed for processing. With a north - south axis, the 240 foot depth would not provide the needed length. Even if the outside storage were moved, there would not be sufficient space. Mr. Hill suggested that Morris Road would not offer sufficient access to the proposed site and asked whether Mr. Bak was contemplating a connecting road from the home site. Mr. Hill also suggested that, being a winding road, Morris Road does not permit two transport trailers to pass and suggested that the same would be true of two emergency vehicles. He also pointed out that Morris Road is not tree lined, which would help demarcate the road during a severe storm event, whereas Bridge Street is well marked with buildings on either side. Ms. Mather suggested that the municipality could place markers.

Mr. Hill suggested that the centre point of the proposed site is 1 1/2 times as far to the edge of the flood plain as the centre of the home base site.

Mr. Hill asked whether Morris Road functions as a dyke within the Bradford Marsh, in that it contains drainage and directs it. He also asked whether the Bradford Marsh was a polder, which Ms. Mather did not know. Mr. Hill suggested that the Bradford Marsh is a polder which has dyking on two sides and is pumped.

Ms. Mather indicated that she had not investigated whether traffic would impact on Morris Road, although the type of vehicle likely to use it in greater number was currently found moving pallets and for vehicles stored on the site.

Thomas George Hogenbirk, P. Eng., Conservation Engineer with the LSRCA has experience in a private consulting firm, specializing in hydraulics and hydrology. Mr. Hogenbirk stated that he has no modelling experience in the Holland Marsh.

Mr. Hogenbirk described the flood characteristics of the vicinity. Using the Environment Canada model for the watershed, he reviewed it as it pertains to this area, as well as reviewing the report of Ms. Mather.

Mr. Hogenbirk referred to the summary section of his Engineering Report for the Walter Bak Farms, Town of Bradford, dated January 18, 1994 (Ex. 30), which is reproduced:

5.0 Summary

5.1) The Holland Marsh is a complex and fragile system of canals, dykes and pump stations.

5.2) Flooding first occurs in the external flood plains north and south of the Holland Marsh polder as the capacity of the canals is exceeded.

5.3) Once storage within these external areas is used up, overflow into the Holland Marsh polder will occur over the interior dykes.

5.4) If fill is allowed within these external areas, such as what is proposed for Walter Bak Farms, the likelihood of interior dyke overtopping will increase.

5.5) More frequent interior dyke overtopping will cause increased spills in the Holland Marsh polder, increase the load on the Bradford Pump Station and may lead to stability problems for the interior dykes.

Mr. Hogenbirk described flood conditions in Paragraph 3 of Exhibit 30:

3.0 Flood Conditions under 1:100 Year and Regional Storm Events

The hydraulics of the Holland Marsh area were modelled in 1987 - 1989 by Cumming Cockburn Limited using one dimensional dynamic model analysis. This method uses a dynamic stage-storage method of analysis instead of the HEC2 steady state model which is more suited to a normal river situation. By means of this modelling, water levels for the 1:100 year

and Regional storm events were established from the west limit of the Marsh (Pottageville Swamp) downstream to Cooks Bay on Lake Simcoe. The conclusions of this study can be summarized as follows:

3.1) The Holland Marsh, although a complex system, can be modelled successfully by a dynamic wave model.

3.2) Widespread overtopping of the dykes will occur under Regional storm conditions. More severe flooding will occur in the West Marsh than in the East Marsh. No dyke overtopping is expected into the Marsh polder for the 1:100 year event.

3.3) The downstream water surface elevations only marginally influence the flood stages in the Holland Marsh area.

3.1) Stages of Flooding

The results of the modelling by Cumming Cockburn as well as historical records show the following stages of flooding to occur as flows increase during the course of a major storm event.

3.1.1) Flows from the major tributaries (original Holland River and North Schomberg branch) increase due to the occurrence of a significant rainfall event.

3.1.2) Flows within the North and South Drainage Canals increase and begin to overtop their external dykes. These dykes are generally 0.3 to 0.9 metres lower than the canal's interior dykes in order to allow for initial overtopping to occur away from the polder area. For example, the North Canal's external dykes are located on its north side and flows which exceed the Canal's capacity will tend to spill northward, away from the polder.

3.1.3) As flows within the Drainage Canals increase still more, a series of flood waves will tend to occur, generally causing overtopping of the interior dykes in the vicinity of the North Drainage Canal, west of Highway 400.

3.1.4) Overtopping of the remaining interior dykes will begin to occur once the areas external to the North and South Drainage Canals are flooded to the elevation of the interior dykes.

A description of flooding within the Bradford Marsh, at Paragraph 4 is reproduced:

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 polder 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 systems 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 (**sic**) on an individual basis.

The cumulative impact of filling in this area would be to 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. It is bounded by Morris Road to the west, Highway 11 to the north, and the North Drainage Canal to the southeast. Complete filling of the 2.75 hectare Bak property would eliminate an estimated 3.2% of the available storage within this flood plain.

Mr. Hogenbirk stated that the impact of the loss of storage on flood elevations is significant, as an inch of additional flooding would put other developments at risk which might otherwise not be in jeopardy. As considerable fill is permitted within the Bridge Street Special Policy, if the full ration of 60,000 to 70,000 cubic feet were placed, this alone would have considerable impact. Due to the possibility of infilling and permitted uses, the LSRCA must be careful that the effect of permitted fill is not further compounded by fill which is not contemplated by the policies. The area in which the Morris Road site is located is one of the largest buffer areas for the North Canal channel, there is potential for the large and small pumps to be overwhelmed.

Under cross-examination, Mr. Hogenbirk stated that the pump at the northeast corner of the Bradford Marsh has capacity of 7,000 gallons per minute. The pump within the Holland Marsh polder is larger. Mr. Hogenbirk was unable to comment on other pumps located to the south.

Mr. Geist questioned why flooding would be directed onto the Bradford Marsh in preference to the Holland Marsh polder, suggesting that the latter would benefit in a flood situation over the former. Mr. Hogenbirk explained that the dykes were designed to protect the original Holland/Schomberg River site. The design of the dykes is to allow the bathtub area to fill before flood waters impinge on the polder. The purpose of the pumps is to maintain an unfloded situation within the polder.

Mr. Geist suggested, that when the Bradford Marsh is compared to the entire Holland Marsh, the area proposed for filling appears to be insignificant. Mr. Hogenbirk agreed, that in relation to the whole watershed, it is insignificant.

Mr. Geist asked about dry access to the new homes constructed along Morris Road, to which Mr. Hogenbirk responded that it was available through other roads within the subdivision, but not off Morris Road itself.

Concerning the impact of the proposed filling on the pumps and on the dyke walls, Mr. Hogenbirk reiterated that far reaching ramifications would result, although no statistical analysis had been done. Filling of the available storage would cause added stress on the dyke walls and require additional pumping by the pumping stations, neither of which was intended in the original design. Mr. Hogenbirk agreed that the LSRCA policies provide for zero tolerance outside the special policy areas.

Submissions:

Mr. Geist submitted that the existing Bak facilities on Bridge Street do not serve the current needs of the business for processing and storage of vegetables. Mr. Bak looked to lands presently owned by him for purposes of his planned expansion. Mr. Geist submitted that the special policy for Bridge Street is related to commercial enterprises, not institutional or agricultural uses, which would best describe the proposed expansion.

Mr. Bak chose the Morris Road site for his proposed expansion on the basis that

he already owns the land, it is in close proximity to his farm operations and the land itself has become marginal for agricultural purposes. The Bak farm operation is unique in this area, growing from seed, plants, growth of actual product, harvest and preparation for selling in the area and elsewhere. The existing flood elevation conditions on the Morris Road site are lower than currently exist at the Bridge Street site. In terms of protecting its investment, the Bridge Street location poses more of a risk in flood conditions than the proposed development at the Morris Road site.

Mr. Geist pointed out that the LSRCA has a special policy within the Holland Marsh developed in 1984 and updated in 1985 which recognizes the special needs of the farmers. The expansion proposed by Mr. Bak is essential to his agricultural operation. It was reiterated that the accessory use allowed by the special policy is limited to agricultural uses. Referring to the Town of Bradford zoning by-laws, Mr. Geist submitted that commercial (C1) zones would include greenhouses and institutional uses, while agricultural (a) uses include storage, processing and packaging of agricultural produce, fabricating and storage of crates and the storage, repair and sale of farm equipment. **Black's Law Dictionary** defines "accessory building" as "structures used for benefit of main building". "Accessory use" is also defined as a "use which is dependent on or pertains to principal or main use".

Pointing out that the LSRCA already has a special policy with respect to the placing of fill along Bridge Street, no quantitative data has been provided to show that the threshold of tolerance for filling within the floodplain would be exceeded by the placing of fill elsewhere other than Bridge Street. Mr. Geist submitted that in the absence of studies or data, the appeal must be determined on its merits.

Mr. Geist asked the tribunal to rely on the evidence of Mr. Hogenbirk that the loss of storage capacity when compared with the entire watershed would be insignificant. The proposed placing of fill would not constrict the main channel, would cause no damming of a watercourse, and in no way would increase flood flows. Relying on the expert opinion of Dr. Irwin, in fact the soil subsidence would result in even more storage capacity within the floodplain. With Mr. Bak either owning or operating 70 percent of the land within the Bradford Marsh, so that the impact of the proposed filling will not create a precedent for the LSRCA.

The Morris Road site has been used for the storage of pallets and equipment for years. There is nowhere in the Holland Marsh area where dry access could be obtained and if it remains a necessity, there should be no special policy.

Mr. Geist submitted that the tribunal should recognize the exception to the policies for purposes of the unique situation created by the Bak appeal.

Mr. Hill submitted that the wording of the regulation permits the conservation authority to grant permission where, in its opinion the proposed placing of fill will not affect the control of flooding or the conservation of land. In an appeal, the onus is on the appellant to convince the tribunal that neither will be affected. Mr. Hill submitted that the appellant has not met this onus.

Mr. Hill submitted that, through evidence led by LSRCA and admissions made by Ms. Mather, it is clear that the proposed filling will affect the control of flooding. He further submitted that it is proper for the tribunal to consider the potential risk to loss of life in reaching its determination.

The special policy is designed to provide for permission only if certain circumstances exist. Permissible development on Bridge Street will affect the dykes. There is no evidence that either the municipal by-laws or the policy of LSRCA prevents redevelopment of agricultural lands.

Mr. Hill pointed out that the Morris Road site is lower than the existing Bridge Street site. It would only be through the filling of this lower land that a lesser risk would be achieved. The issue to be determined is whether it is appropriate to allow filling of these lower lands to reduce risk at the expense of storage capacity and potential impact on other lands within the floodplain.

While the existing temporary housing is susceptible to flooding, it would be preferable to have such housing nearer to Bridge Street, which is well marked and is closer to the safety of higher lands outside the floodplain.

Mr. Hill submitted that it is not safe to permit new residential development on the Morris Road site because the access and egress would be along a one lane road with no markings and steep banks. It is surprising that Mr. Bak would wish to locate at this site, using transport trucks on a road which was not designed to accommodate traffic of such magnitude and type of vehicle. This amounts to an increased risk to loss of life.

With respect to other residences, although there is no evidence either way, it remains possible that these homes are replacement construction, which is permitted by the special policy. However, no new residences may be constructed without dry access.

Mr. Hogenbirk has testified that the infrastructure of the Holland Marsh, with its dykes and pumping stations, is unique. Caution must be exercised in consideration of proposed tinkering. It is most appropriate to exercise care in consideration of any proposed filling of the flood prone lands. The LSRCA recognizes that continued use and development will occur within the floodplain, which led to the special policy for the area. However, the placing of fill is limited to reasonable circumstances. Mr. Bak has the benefit of the special policy on his Bridge Street lands. He can expand his existing facilities. However, the appeal does not concern Bridge Street.

Mr. Hill points out that the special policy does not state how much fill is permitted in the special policy area. He suggested that it is implied that the fill will be kept to a minimum to comply with the policy in general. Mr. Hill agrees that each case must be considered on its merits, which is what has happened with the application under appeal. In attempting to use the special policies applicable to Bridge Street, Mr. Bak is going well beyond what has been considered permissible for that site. Mr. Hill asked that the tribunal not allow the applicability of the special policies to be further expanded.

Mr. Hill suggested that Mr. Hogenbirk's opinion that the impact of the proposed filling would be insignificant should not be taken out of context. Both Mr. Hogenbirk and Ms. Mather agreed that, by referring to the Bradford Marsh as a bathtub, they were characterizing it as a flood basin to catch the overflow. Both experts agreed on all aspects of the impact of the proposed placing of fill, and only differed on the acceptable loss of storage capacity in the circumstances.

The Coburg Cumming report is not a policy statement, but rather was commissioned by the LSRCA. There is no evidence that the LSRCA's policies were changed as a result of the report.

While Mr. Geist suggested that there was no measurable change in flood levels, the one and a half inches of increased flooding is significant in its potential impact on the infrastructure. The potential for the dyke to overtop and flood the polder has not been addressed, except to indicate that the impact should not be considered significant.

Mr. Hill submitted that all evidence concerning subsidence should be given no weight. Farming practices have changed, so that elevations might not be subsiding to the extent which has been the case historically. The impact of subsidence should be found to be too remote to have an impact on the tribunal's decision, in his submission.

As to the uniqueness of the Bak application, as owner or occupant of 70 percent of the land within the Bradford Marsh, this is subject to change as land can change hands. Also, the proposed placing of fill would provide the basis to redevelop lands within the Bradford Marsh. This appeal should be regarded as having potential to cumulatively impact on flood levels as more similar applications are made. As there is no dispute that increased flooding will occur, but only on the significance of the flooding, the tribunal should prefer the opinion of that expert which points to increased measurable risks. Allowing the appeal will have increased potential to risk to loss of life.

Mr. Geist responded that the sole purpose of the application was to relocate an existing use. This is not a commercial development, not a new residential development, but simply accommodation to facilitate the farming operations. The special policy supports this type of application.

Mr. Geist submitted that it is not an answer to state that the system cannot be tinkered with. He suggested that the report of Cummings Cockburn could be adopted as policy (Ex. 30, paragraph 3). There is a balancing act to be performed with subsidence and fill. The proposed filling would have insignificant impact over the floodplain as a whole.

Initial Findings of Fact:

After consideration during an over night recess, the tribunal found that the appeal from application CA 009-92 would not be allowed. Although time did not permit consideration of all of the issues on appeal, the tribunal was prepared to make its decision based on the dwellings for the migrant farm workers. The following reasons were given, after which Mr. Geist indicated that his client was prepared to withdraw the residential portion of the appeal. Mr. Hill consented to this, as nothing was to be accomplished from requiring the appellant to bring a fourth application before the LSRCA which provided for the placing of more fill than had

already been refused in two other applications. The tribunal's initial findings are reproduced:

The proposal for the placement of dwellings for migrant farm workers raises severe concerns. These are:

The proposal does not anticipate dry access, contrary to 1(c) of the LSRCA's Watershed Development Policies. Submissions that other new dwellings without dry access have been allowed is not persuasive, as there evidence is not conclusive. Many of the dwellings drawn to the tribunal's attention could be replacement dwellings.

The tribunal does not accept the argument that safe access exists. A one lane road with six foot embankment on either side is not sufficient to alleviate concerns about risk to loss of life. The width of the road does not permit two vehicles to cross paths. Markings and guard rails will not remove the very real possibility of problems occurring during a severe storm event which could block the roadway, such as a transport trailer or emergency vehicle jackknifed across the road or skidding into the low lying lands.

The Bridge Street Commercial policy specifically excludes residential uses. The tribunal does not accept the proposition that off site replacement is the equivalent of on site replacement, so that dry access would be necessary for any proposed relocation.

The Watershed Development Policies are sufficiently specific that temporary dwellings for migrant workers cannot be classified as an accessory agricultural use as opposed to a dwelling use.

Further Submissions:

The tribunal raised several concerns which were not addressed at the hearing, and for which additional submissions were required:

1. In respect of "accessory structures ... limited to agricultural uses" as used in paragraph 9(c) of the Watershed Development Policies, submis-

sions are required to determine what agricultural uses are contemplated? In particular, does this phrase mean uses only in respect of adjacent farm lands owned or operated by an applicant/appellant, uses in respect of all lands wherever located operated by an applicant/appellant or uses in respect of any and all agricultural lands, so that storage and production of agricultural products could be provided to the farming community generally?

2. How does the placing of fill within agricultural land which has become marginalized, but is within the flood plain, impact on the phrase "conservation of land" as used in clause 28(1)(f) of the **Conservation Authorities Act** and "conservation of the land" as used in section 4 of Ontario Regulation 179/80? In other words, is the marginalization of agricultural land a sufficient reason to permit the placing of fill, given that the status of the land being wholly within the flood plain has not changed?

Mr. Geist reiterated his submissions concerning the commercial zoning permitted at the Bridge Street site. The purpose of the proposed filling of the Morris Road site is to relocate existing uses, none of which can be called commercial, but are accessory agricultural uses.

Mr. Geist submitted that the exemption within the special policy area allows for filling. Mr. Bak is a prudent farmer who spoke with the Ontario Ministry of Agriculture ("OMAF") and was told that the contemplated accessory uses would be a wise use of the otherwise marginalized farm land.

Mr. Geist submitted that floodplain management is not an exact science. In reaching a determination by what should be allowed, the conservation authority and the tribunal in using their discretion must be guided by the Holland Marsh special policy.

The proposed filling and development on the Morris Road site is essential to the Bak farming operation, representing a continuation and upgrading of existing facilities.

Mr. Hill submitted that, in considering whether a proposed accessory use is permitted, the question for the conservation authority and for the tribunal is whether the use is essential to the agricultural operation. Referring to the policy, Mr. Hill asked that the tribunal note that the agricultural use is limited to the operation of the applicant. The determination is not based on the agricultural characteristics of the property. It was unclear from the evidence as to whether the processing operation, once expanded, was exclusively for the Bak operation, or whether it would also accommodate the needs of other farmers.

As to whether all of the facilities proposed by the appellant fall into accessory uses, Mr. Hill submitted that farm implement storage and repair, processing and greenhouses have the appearance of being industrial.

Referring to the special policy, Mr. Hill submitted that the requirement that electrical panels be above the floodplain contemplates that the structures themselves will be below the flood elevation level rather than the filling of the site to the flood elevation.

Concerning the issue of zoning introduced by Mr. Geist, Mr. Hill submitted that it is not relevant. A conservation authority or the tribunal can refuse an application on the basis of flood control whether or not the zoning would permit the proposed use. Municipalities do not consider watershed policy in their zoning.

Concerning the issue of conservation of land, Mr. Hill submitted that there is nothing in the **Act** or regulation which allows marginal agricultural land within the floodplain to be filled. By implication, it is anticipated that filling will be kept to the minimum. The thrust of the general policies is to discourage all development within the floodplain. All floodproofing must be done to the regulatory flood elevation established by the Ministry of Natural Resources. While accessory structures are contemplated, they are not expected to be habitable.

As to what happens when agricultural lands go out of production, there is nothing within the policies to suggest that the land may be filled. The entire Bradford Marsh is becoming marginal. There is no evidence that the site could not be used as greenhouses when the much is gone. However, it must be remembered that the only reason these lands are dry is because the entire marsh is dyked and pumped. As for the best use of the lands in future, when the conserva-

tion authority looks at proposed uses, it must look at the implications for the control of flooding. The policies do not contemplate filling, but only a continuation of agricultural uses.

Mr. Geist submitted that the tribunal must determine what is essential to an agricultural operation. Mr. Bak feels that it is essential to his farming operation that certain uses be relocated from the Bridge Street site to other lands, which have been zoned by the municipality for agricultural uses. The LSRCA brought in the issue of zoning in its Bridge Street Special Policy. The issue of relocating a legal non-conforming use is based upon the problem that there is no room at the Bridge Street location for expansion.

Referring to the Special Policy, Mr. Geist submitted that the special policy for the Holland Dyked area states that paragraph 1(e) will not apply. Paragraph 9(c) does not relate back to the general policies, and if it is meant to, the paragraph should specifically state it.

One quarter of the Bridge Street property is owned by Mr. Bak and is already filled in, so that a portion of the 60,000 cubic metres of permissible fill is already there. He submitted that there is no data on how close to the threshold for permissible fill the Bradford Marsh currently is. Reviewing the chronology, Mr. Geist pointed out that the general policy was passed in 1983, the Holland Dykes Special Policy in 1985 and the Bridge Street Policy in 1990. He suggested that the Bridge Street policy would have had the Holland Dykes policy in mind when Bridge Street was considered, and yet nothing in the Bridge Street policy suggests that the limits for filling in the floodplain have been reached.

The Bridge Street Special Policy was to permit expansion of Bridge Street as a commercial strip. It must be assumed that the LSRCA had other policies in mind. Mr. Geist submitted that it is troubling to contemplate a situation where a farmer does not have land on Bridge Street and wishes to place fill elsewhere. If the overriding concern is the control of flooding, only that type of development essential to agriculture should be permitted.

Referring to section 20 of the **Act**, Mr. Geist reviewed the objectives of the LSRCA. He submitted that there is no program in place for the conservation or restoration of the Bradford or Holland Marshes as the lands become marginalized. There is no program in place to restore agricultural land, which is under the

jurisdiction of OMAF, which has no such program. All that can happen is once the land is marginal, it is taken out of production. Mr. Bak has indicated that it is cost prohibitive to import muck. With the aid of fertilizer, the operation cannot grow the appropriate products, which is why OMAF has not suggested doing so. It must be recognized that the natural resource at this site is gone and cannot be restored.

Mr. Hill does not dispute that the LSRCA does not have a specific program in place for the restoration of the marsh, as to date the focus of programs has been to prevent flooding. However, sections 20 and 21 of the **Act** speaks to the furtherance of objectives, including the making of regulations to aid in that purpose. Muck soils are a natural resource, and due regard must be had to them. Increased flooding could have an effect on the preservation of soils elsewhere in the marshes. The LSRCA and the tribunal must also have regard to the cumulative effect of the filling. If allowed, others within the marshes may also wish to fill in and cover the muck. This limits any future possibility of regeneration.

Mr. Geist stated that he did not see muck soils enunciated in the special policies. He submitted that there is a balancing act to be performed between the loss of soils through subsidence and allowable filling, so that there will be no net loss of storage capacity. While there are programs which deal with stability and erosion of soils, there can be no program to regenerate the muck, as it took thousands of years to be created.

Mr. Hill referred to the Watershed Policies, which quote section 20 of the **Act**. In fairness, the needs of the appellant were considered, but the objectives of the **Act** took precedence. The LSRCA must have regard for restoration of natural resources and so cannot permit a filling which would preclude future restoration. Mr. Geist responded that it is well and good to protect a natural resource which is present, but the muck soils are no longer present, so that their protection should not be a consideration.

Findings of Fact:

Impact of Fill on Flood Level Elevations

There is no disagreement between Ms. Mather and Mr. Hogenbirk concerning the
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impact on flood level elevations of the fill, namely an increase of 1 1/2 inches. The disagreement is only whether this is sufficient to adversely affect the control of flooding.

Special Policy for the Holland River Dykes Area

Through the Special Policy, the LSRCA has specified the parameters of its discretion which it is prepared to exercise on behalf of an applicant to allow a limited amount of development to occur, so long as the proposed development is essential to the continuation of the agricultural operation involved. While the purpose of the Special Policy appears to promote the continued viability of the agricultural community, the tribunal finds that its scope is not significant and does not support the placing of vast amounts of fill within the flood plain.

The Holland River Dykes system has been described by Mr. Hogenbirk as a fragile engineered system designed, at first instance during a regional storm, to have water exceeding the capacity of the North Drainage Canal overtop the western most wall of the canal and flow into the Bradford Marsh area where the Bak farm is located. There are two pumping stations within the Bradford Marsh, one located at the north end of the Holland Marsh Polder, just south of Bridge Street, and one to the south, about half way between Bridge Street and Highway 400.

Being an engineered environment, many of the seemingly natural laws of flood plain management are not applicable in the dyke area. The most important aspect of this is that, even though the Morris Road site lies at the outer fringe out the flood plain, the dykes are constructed to flood the Bradford Marsh first in preference to the Holland Marsh polder. Therefore, although filling in proximity to the outer reaches of the flood plain will not normally constrict flows, a completely different dynamic is at work, namely that the storage capacity of the outer fringes will be reached more quickly.

The effect of increased flood elevation levels within the Bradford Marsh is extensive. First, there will be an increase in required capacity of the pumping stations, most likely to be felt at the northern location, which is closer to the site of proposed filling. The evidence at the hearing was inconclusive regarding whether the pumping station is designed to meet this additional requirement. The extent of the

potential increase in flood level elevations within the Holland Marsh polder has not been calculated. However, from Figure 2 of Exhibit 25, it is apparent that the Town of Ansnorveldt is located within the polder and that there may be potential detrimental impacts on such existing development. Finally, there is the potential impact on the infrastructure of the dykes themselves. As discussed by Mr. Hogenbirk, more frequent and more severe flooding will impact on the stability of the dyke walls.

Subsidence

The evidence presented concerning the potential set-off between loss of storage capacity of the proposed filling and subsidence of soils is not conclusive. Also, in light of the extent to which the organic mucks have been depleted in the Bradford Marsh, such that cultivation is now resulting in a mixing of non-muck soils in with the remaining muck, the rate of subsidence is likely to decrease. The extent of this decrease is not known.

Amount of Fill

The dimensions of the Morris Road property are set out on Exhibit 7 and Figure 3 of Exhibit 25 as 329 feet wide by 830.28 feet deep. There is confusion regarding the extent of filling proposed by the application under appeal which arises from the letter of refusal dated November 16, 1992 (Ex. 12), which makes reference to an application "to place fill on this 6.8 acres lot over an area of approximately 2.5 acres next to Morris Road".

In the last full paragraph of page 4 of Exhibit 25, it states, "This application proposes to place fill over the entire 6.8 acre site to the elevation of Morris Road." However, at the bottom of page 3, it is recognized that a portion of the property was filled in the more distant past, to the extent of approximately 23 metres by 70 metres.

The extent of the proposed placing of fill is relevant, as the buildings to be constructed are distributed over the first 2/3 of the property, if taken from Morris Road, with the concentration of buildings being more or less in the central third of the property.

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Based upon the documentation filed, the amount of fill proposed is between 37,000 and 44,000 cubic metres. It is useful to compare this with the Bridge Street Special Policy Area. Ms. Mather has estimated that the amount of fill which would be permitted at that location would be approximately 60,000 to 70,000 cubic metres. There was no evidence concerning the amount of existing fill along the Bridge Street frontage and the extent to which it would impact on the total permissible.

The frontage of the Bridge Street Special Policy Area, as set out on Schedule A of Exhibit 4, appears to be a total of 495 metres or 1624 feet in length. The tribunal notes that the initial proposal for the Bridge Street Special Policy Area was to permit filling to a depth of 405 feet. The resultant coverage of this would have been 657,720 square feet, or 15.09 acres. The LSRCA Executive instead passed a resolution which would permit redevelopment to the first 220 foot depth off Bridge Street. The resultant coverage of the area which can be redeveloped as 357,280 or 8.2 acres.

Provincial Flood Plain Policy Special Areas

The LSRCA Watershed Development Policies were amended to include the Holland River Dykes Special Areas on March 15, 1985. As such, such cannot be considered to be a Special Policy within the meaning of the 1988 Provincial Flood Plain Planning Policy Statement. The Special Area Policy Concept, as set out in the Flood Plain Planning Policy Statement, which is "A statement of Ontario Government policy issued under the authority of Section 3 of the Planning Act 1983", approved by the Lieutenant Governor in Council, Order in Council No 1946/88, dated August 11, 1988, is described at page 9 of the policy:

It is the policy of the Province of Ontario that:

- 6.1 Where strict adherence to policies (4) and/or (5) [one zone or two zone concepts respectively] is not feasible, the concept of special policy area status is recognized as a possible option for flood prone communities or portions thereof. Municipalities may apply for special policy area status, in accordance with established procedures, and controlled development may be permitted once such status is obtained.

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- 6.2 Municipalities delineate special policy areas in their official plans and include policies indicating the circumstances under which new development may be permitted and identifying the minimum acceptable level of protection required for new development.

A portion of the explanation of the Special Area Policy Concept commencing at page 26 of the Flood Plain Planning Policy Statement Implementation Guidelines, dated October, 1988 is set out below:

3.6.1 Explanation

While the provincial flood plain management objectives are clear, their achievement necessitates flexibility in some situations. Historic development of many villages, towns and cities on the flood plains of streams and rivers means their viability depends on a reasoned application of provincial standards. In certain cases, even the application of the two-zone concept to allow development of the flood fringe will not provide sufficient development capability to maintain community viability.

The concept of the special policy area provides additional flexibility in flood plain management. Special policy areas are those in which provincial standards for flood plain management are relaxed to recognize certain exceptional situations. Where no suitable alternative exists, a council may consider major development or redevelopment in a floodway or floodproofing that is below the regulatory flood level so as to provide sufficient development capability with a view to maintaining the community's social and economic viability. However, it must be stressed, the two-zone concept option is intended to provide flexibility in flood plain management and therefore, special policy

areas will be approved only in circumstances where the two-zone concept cannot reasonably be applied and all other requirements for special policy area designation can be met.

Although a community may qualify for special policy area status, not all of its flood plain lands would necessarily be subject to special policy provisions. Special policy area status provides for additions, alterations and replacement of existing buildings and structures and infilling (previously undeveloped lots within developed areas). In addition, it is recognized that peripheral areas, presently undeveloped, may be considered to be an integral part of a community. (emphasis added) That is, a logical extension of the community to be developed in the near future. Such areas would tend to be small in size and may be included within the limits of the special policy area.

Special policy areas are intended to provide for the continued viability of existing uses, generally on a small scale (i.e. lot by lot) basis. This is in recognition of standard flood plain criteria physically not being achievable for an individual building or structure or the application of standard criteria would put the building, structure, addition, etc. out of character with the surrounding area. However, where large scale comprehensive redevelopment is proposed, more opportunity exists for achieving flood protection. Where such situations exist, standard flood plain requirements may be applied (i.e. development in the floodway restricted, floodproofing to the regulatory flood level), regardless of the special policy area status. As well, proposed changes in land use within a special policy area that require an official plan amendment may also require that standard flood plain requirements be met.

For special policy area status, a municipality must have an official plan which adequately discusses and addresses the special policy area situation. Engineered flood plain mapping and flood plain data is also required in sufficient detail to graphically display and describe precisely the area and the effects.

The Bak Appeal

Mr. Geist has passionately argued that the continuing viability of his client's operation depends on being permitted to place fill and expand the operation as described at the Morris Road site. The tribunal finds that the scope of the Watershed Development Policies and the Bridge Street Special Policy are insufficient to support his cause being the extent of filling proposed in the current appeal. 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 LSRC 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.

The Holland River Dykes Area Special Policy was not made pursuant to the Provincial Flood Plain Planning Policy Statement. As such, no studies have been performed which conclusively calculate the extent of subsidence within the Bradford Marsh, nor is there any information on whether the dyke system could be reinforced to withstand a higher flood level elevation, either through some changes to the infrastructure itself or the installation of additional pumps. Finally, any such Special Policy Concept Area would require the approval of the Ministers of Municipal Affairs and Natural Resources.

The proposal put forward by Walter Bak Farms Ltd. on the current appeal would change the character of the northwest corner of the Bradford Marsh. There was some discussion at the hearing as to whether the proposed use of the processing facilities would be limited to the Bak agricultural operation. There is no authority in the permission applied for to limit incoming produce in future. Nor is there any ability to trade potential filling at the Bridge Street site for filling behind Morris Road.

Undoubtedly, construction of an expanded processing and storage facility could have economic and social benefits for the Town of Bradford. The Morris Road location is on the fringe of Bradford so that a Special Policy Concept area could be created to include the type of expansion of facilities proposed by Mr. Bak. However, to do so would be contingent on the Town of Bradford wishing to proceed to obtain Special Policy Concept Area status from the Province, cooperation of the LSRCA and extensive studies to ensure that it is possible.

The tribunal finds the 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 within the system after the fact.

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.

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.

The tribunal finds that the appeal will be dismissed. The issues of cumulative effect and precedent are not found to be factors in reaching this decision. The impact of three percent reduction in the storage capacity of the flood plain is sufficiently significant in an engineered system to refuse to allow the appeal. Although Mr. Geist has submitted that this situation is sufficiently unique that similar

applications would not result, his submission is based upon the extent of land owned or rented by the Bak operation. Within the history of mankind, landholdings have never been static, and there is nothing in this situation to suggest an anomaly.

With respect to the issue of conservation of land, which was raised by the tribunal itself, it is noted that the entire Holland River Dyked Area is engineered, so that the question of what could be conserved becomes interesting. Clearly, past farming practices were not done on the basis of sustainability. Whether modern practices can halt the depletion of the natural resource or simply slow it down remains to be seen. In the absence of a program providing for the restoration of the Marsh to its previous state of annual flooding or permanent water coverage, it is not the role of the tribunal to impose a pro-active conservation of land program on the conservation authority. Therefore, the tribunal finds that its decision is not based upon conservation of land considerations.

Conclusions:

The tribunal finds that the appeal will be dismissed, as the proposed filling will affect the control of flooding.