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We would like to reaffirm that the Government of Nunavut and the Hamlet of Cape Dorset are taking all reasonable actions to ensure the continued viability of the existing sewage treatment systems and to proceed with various planning and design so that construction of a permanent solution can proceed in the 2005 construction season. To this end, we have enclosed copies of our correspondence with Environment Canada on the matter.

Sincerely,


for Tom Rich
Deputy Minister

Encl.

Cc Dionne Filiatrault, Nunavut Water Board (Gjoa Haven)
Sid Bruinsma, Environment Canada (Iqaluit)
Bruce Trotter, GN Health and Social Services (Iqaluit)
Linda Tingley, GN Legal Counsel (Iqaluit)
David Akoak, GN Community and Government Services
Shawn Maley, GN Community and Government Services
Art Stewart, SAO Cape Dorset

INSPECTOR'S DIRECTION

Environment Canada
Environmental Protection Branch
Prairie and Northern Region
Iqaluit District Office
P.O. Box 1870
Iqaluit, Nunavut.
X0A 0H0

PROTECTED

13 May 2004

File No. 4408-2004-03-12-005

Acknowledged with receipt.

The purpose of this Inspector's Direction is to inform:

- 1) The Hamlet of Cape Dorset, Nunavut
c/o Art Stewart
Senior Administrative Officer
Hamlet of Cape Dorset, Nunavut
P.O. Box 30
Cape Dorset, Nunavut
X0A 0C0
- 2) The Nunavut Territorial Government
c/o Mr. Tom Rich
Deputy Minister
Department of Community Government and Services
Iqaluit, Nunavut

This letter constitutes an Inspector's Direction to the Hamlet of Cape Dorset, Nunavut and to the Nunavut Territorial Government, under section 38(6) of the Fisheries Act, R.S.C. 1985, c. F-14, as amended and relates to the serious and imminent danger of the deposit of raw sewage into the water frequented by fish, to wit: Tellik Inlet, contrary to subsection 36(3) of the Fisheries Act, R.S.C. 1985, c.F-14, as amended.

REASONABLE GROUNDS FOR BELIEF

I, Sid Bruinsma, an Inspector designated by the Minister of Fisheries and Oceans pursuant to subsection 38(1) of the *Fisheries Act*, R. S. C. 1985, c. F-14, as amended, have reasonable grounds to believe:

- 1) That on 05 March 2004 at 1330 hours Environment Canada was made aware of a capacity problem at the Cape Dorset sewage lagoons and that the community's Senior Administrative Officer, Art Stewart, reported that the community had to place raw sewage into the old lagoon system to prevent a collapse of the new sewage lagoon system.
- 2) That on 22 April 2004 at 1330 hours Environment Canada representatives met with representatives of the Territorial Government of Nunavut's Community Government and Services Department. The Department was advised that an inspection would be conducted at Cape Dorset based on the information provided by the Department. The Department of Community Government and Services outlined the problems at the site and provided information of future developments to address capacity and design issued at the Cape Dorset community sewage lagoons.
- 3) That during an inspection on 05 May 2004, representatives of the Hamlet of Cape Dorset, the Nunavut Territorial Government of Nunavut and I observed the conditions of the two sewage lagoons systems in Cape Dorset. The first system observed was the old lagoon it was in use and it appeared to be exfiltrating under the berm and under the roadway adjacent to the lagoon and heading down a high pitch gradient apparently depositing raw sewage into Tellik Inlet.
- 4) That during the inspection on 05 May 2004 I observed the use of the second lagoon system had been discontinued. In this three celled lagoon, cells #1 and #2 had reached capacity and in cell #2 the effluent had reached the top of the berm and had overflowed causing erosion and potentially compromising the berms integrity.
- 5) That during the inspection on 05 May 2004 I observed the location of the new lagoon system and that it had reached capacity and posed an imminent threat due to the condition of the berm and that the impending freshet would add runoff water to the cell and overflow the cell walls resulting in deterioration and possible failure of the berm.
- 6) That the Hamlet of Cape Dorset and the Nunavut Territorial Government owns the deleterious substance or has the charge, management or control thereof, or has caused or contributed to the causation of a deposit of the deleterious substance or danger thereof.
- 7) That I am aware the Hamlet of Cape Dorset is responsible for the maintenance and repair of the sewage lagoon in the Hamlet of Cape Dorset, Nunavut and therefore responsible for the structural integrity of the berm surrounding the sewage lagoon.
- 8) That I am aware that Tellik Inlet is a body of water frequented by fish because of information received by me from communications with Tania Gordanier, Habitat Management Biologist from the Department of Fisheries and Oceans.
- 9) I am aware from personal knowledge that human sewage is a deleterious substance.

- 10) That, to the best of my knowledge, reasonable measures consistent with safety and with the conservation of fish and fish habitat to prevent any occurrence or to counteract, mitigate or remedy any adverse effects that result or may reasonably be expected to result therefrom have not been taken by the Territorial Government of Nunavut and the Hamlet of Cape Dorset and that the parties continue to deposit raw sewage and that a serious and imminent danger exists that a deleterious substance may be discharged from the property via surface water runoff from rain or melted snow and that the deleterious substance may enter water frequented by fish or may be deposited in a place where it may enter such water.

MEASURES TO BE TAKEN BY THE TERRITORIAL GOVERNMENT OF NUNAVUT AND THE HAMLET OF CAPE DORSET, NUNAVUT.

Under the authority given to me pursuant to subsection 38(6) of the *Fisheries Act*, I do hereby direct the Territorial Government of Nunavut and the Hamlet of Cape Dorset, Nunavut to take or cause to be taken, immediately, all reasonable measures consistent with the safety and the conservation of fish and fish habitat to prevent the deposit of the aforementioned deleterious substance, that is, raw sewage in water frequented by fish, that is, Tellik Inlet, and to counteract, mitigate or remedy any adverse effects that result or may be expected to result there from, including:

Taking action to prohibit or minimize surface water runoff from entering the sewage lagoon systems containing raw sewage, and

Advising Environment Canada in writing with an interim report by June 1, 2004 and a final report August 1, 2004 of the measures that have been taken to comply with this Direction and with subsection 36(3) of the *Fisheries Act* to prevent the deposit of the aforementioned deleterious substance, that is, raw sewage in water frequented by fish, to wit, Tellik Inlet, and

Monitor the sewage lagoons until such a time that the risk of depositing the deleterious substance in waters frequented by fish, that is, Tellik Inlet, is eliminated.

THE LAW

Subsection 36(3) of the *Fisheries Act* states:

(3) that no person shall deposit or permit the deposit of a deleterious substance of any type in water frequented by fish or in any place under any conditions where the deleterious substance or any other deleterious substance that results from the deposit of the deleterious substance may enter any such water, except in accordance with prescribed Regulations.

Subsection 38(4) of the *Fisheries Act* states:

(4) Where, out of the normal course of events, there occurs a deposit of a deleterious substance in water frequented by fish or a serious and imminent danger thereof by reason of any condition, and where any damage or danger to fish habitat or fish or the use by man of fish results or may reasonably be expected to result therefrom, any person who at any material time

(a) owns the deleterious substance or has the charge, management or control thereof, or

(b) causes or contributes to the causation of the deposit or danger thereof, shall, in accordance with any regulations applicable thereto, report such occurrence to an inspector or such other person or authority as is prescribed by the regulations.

Subsection 38(5) of the *Fisheries Act* states:

(5) Every person referred to in paragraph (4) (a) or (b) shall, as soon as possible in the circumstances, take all reasonable measures consistent with safety and with the conservation of fish and fish habitat to prevent any occurrence referred to in subsection (4) or to counteract, mitigate or remedy any adverse effects that result or may reasonably be expected to result therefrom.

Subsection 40(2) of the *Fisheries Act* states that every person who contravenes section 36(3) of the aforementioned Act is guilty of:

"an offence punishable on summary conviction and liable, for a first offence, to a fine not exceeding three hundred thousand dollars and, for any subsequent offence, to a fine not exceeding three hundred thousand dollars or to imprisonment for a term not exceeding six months, or to both; or an indictable offence and liable, for a first offence, to a fine not exceeding one million dollars and, for any subsequent offence, to a fine not exceeding one million dollars or to imprisonment for a term not exceeding three years, or to both."

Failure to take reasonable measures as required by subsection 38(5) of the *Fisheries Act* and failure to comply with an inspector's direction issued under subsection 38(6) of the *Fisheries Act* are offences under paragraphs 40(3)(e) and 40(3)(f) of the *Fisheries Act*.

Paragraph 40(3) provides that everyone who...

(e) fails to take any reasonable measures that he is required to take under subsection 38(5) or fails to take such measures in the required manner; and,

(f) fails to comply with the whole or any part of a direction of an inspector under subsection 36(6),

is guilty of an offence punishable on summary conviction and liable, for a first offence, to a fine not exceeding two hundred thousand dollars, and for any subsequent offence, to a fine not exceeding two hundred thousand dollars or to a term of imprisonment for a term not exceeding six months, or to both.

Paragraph 78.1 provides that where any contravention of this Act or the regulations is committed or continued on more than one day, it constitutes a separate offence for each day on which the contravention is committed or continued.

Paragraph 78.2 states that where a corporation commits an offence under this Act, any officer, director or agent of the corporation who directed, authorized, assented to, acquiesced in or participated in the commission of the offence is a party to and guilty of the offence and is liable on conviction to the punishment provided for the offence, whether or not the corporation has been prosecuted.

CONCLUSION

Please be advised that this Inspector's Direction is **WITHOUT PREJUDICE** to any further course of action that Environment Canada or any other enforcement agencies may take with respect to this alleged violation of subsection 36(3) of the *Fisheries Act*, R.S.C. 1985, c. F-14, as amended, or any other Act, including applying for an injunction, issuing a Minister's Request under subsection 37(1) of the *Fisheries Act* or initiating a prosecution.

Also be advised that any future release of a deleterious substance from the property owned or controlled by the Territorial Government of Nunavut or The Hamlet of Cape Dorset into waters frequented by fish may constitute a violation of subsection 36(3) of the *Fisheries Act* which could result in charges being laid against the Territorial Government of Nunavut or The Hamlet of Cape Dorset or their responsible officials.

For more information about the pollution prevention provisions of the *Fisheries Act*, I enclose a copy of the *Compliance and Enforcement Policy for the Habitat Protection and Pollution Provisions of the Fisheries Act*.

For more information, or to respond to the alleged facts contained in this warning, please contact the undersigned by telephone at (867) 975-4644 or by writing to Environment Canada, P.O. Box 1870, Iqaluit, Nunavut, X0A 0H0. Any submissions will be taken into consideration and a response will be provided where appropriate. All submissions received, as well as any response issued by Environment Canada, will be maintained on file with this Inspector's Direction.

I wish to further advise the **Territorial Government of Nunavut** and the **Hamlet of Cape Dorset, Nunavut** that Environment Canada will be conducting further inspections of the site to verify compliance with this Inspector's Direction.

Sincerely,

Sidney F. Bruinsma
Fishery Officer / Inspector

cc:

Mr. Hal Sommerstad
Manager, Regional Enforcement
& Emergencies Division
Prairie and Northern Region
Edmonton, Alberta

Mr. Peter Blackall
Regional Director
Environmental Protection Branch
Prairie and Northern Region
Edmonton, Alberta

Mr. Charles Brumwell
Manager, Northern Division
Environment Protection Branch
Prairie and Northern Region
Yellowknife, Northwest Territories

Mr. Robert Chouinard
Manager, Regional Support Division,
National Programs Directorate
Enforcement Branch
Hull, Quebec

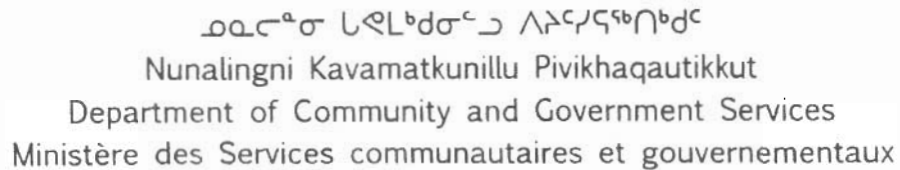
Mr. Craig Broome
Head of Enforcement, Northern Division
Environmental Protection Branch
Prairie and Northern Region
Yellowknife, Northwest Territories

Mr. Doug Sitland, P.Eng.
Community Government and Services
Nunavut Territorial Government
Iqaluit, Nunavut



Ministère des Services communautaires et gouvernementaux

 (867) 975-5300  (867) 975-5330



Actions Taken in the Last Two Years

- o Berm at the far end of the “old lagoon” was elevated with extra fill in order to control seepage.
- o Three 3-foot high berms were placed on the downslope side of the “old lagoon” to aid in filtration/retention
- o The side and end berms of Cell 1 of the “new lagoon” were elevated with extra fill
- o Culvert in Cell 1 of the “new lagoon” was moved to prevent runoff to the main road
- o The capacity of Cell 2 of the “new lagoon” was increased with additions to the berms on the sides and ends
- o A side wall of Cell 3 of the “new lagoon” was repaired and capacity increased
- o Ditching was undertaken near the side of the mountain to divert runoff
- o Ditching was undertaken on the town side of Cell 3 of the “new lagoon” to divert runoff

Therefore, both the Government of Nunavut and the Hamlet of Cape Dorset take exception to your assertion that "...reasonable measures...have not been taken by the Territorial Government of Nunavut and the Hamlet of Cape Dorset...". That being said, in the interests of fostering positive and productive relations with our federal partners and in the interests of providing adequate sewage treatment systems for all communities, the following additional immediate actions have been taken:

- The ditch above Cell 1 of the “new lagoon” will be cleared of snow to allow runoff to by-pass Cell 1
- The culverts in Cells 1,2 and 3 will be cleared of snow and ice to permit flow as intended
- The single culvert in Cell 2 has been replaced with 2 culverts to encourage positive drainage
- The ditch (and associated culverts) that extends from the dumpsite down past Cell 3 of the “new lagoon” will be cleared of snow and ice so as to encourage positive drainage and prevent flow across the road and into either Cells 2 and 3.

P.O. Box 1000, Station 700 Government of Nunavut, Iqaluit, NU. X0A 0H0

 (867) 975-5300  (867) 975-5330



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Nunalingni Kavamatkunillu Pivikhaqautikkut
Department of Community and Government Services
Ministère des Services communautaires et gouvernementaux



- Public Service Announcements on local radio alerting residents of the issue and asking them to conserve water

As of June 1, 2004, the Hamlet has completed these tasks as best they can, within reason.

Over the summer of 2004, the following “intermediate” term actions will be taken.

- Examine options to increase the capacity of the existing 3-Cell “new lagoon”
- Examine options to increase the capacity of the “old lagoon”
- Continue with Public Service Announcements and ask residents to conserve water in an effort to lessen the demand on the existing sewage treatment systems
- Review operations and maintenance practices to ensure they are updated.

Details on a PRELIMINARY plan to increase the capacity of the existing systems is included for your review. CGS intends to examine in more detail the feasibility of undertaking these works, obtaining permission from the Nunavut Water Board (and relevant stakeholders) and implementing the works in the summer of 2004.

In addition, the following long term actions are proposed for the summer of 2004 and future years.

- As the community preference of “P Lake” is known to have fish, CGS could not move forward as intended over the winter of 2003/04. CGS will initiate fish and bird habitat studies to ensure that the use of “P Lake” and the associated wetland is acceptable to all stakeholders
- CGS will initiate planning and pre-design to estimate the level of treatment that will be obtained with the proposed “P Lake” solution and ensure it is acceptable to all stakeholders
- Pending the successful approval of the “P-Lake” option, CGS will undertake design so that the works can be publicly tendered for the summer of 2005.

It should be noted that the construction of the lagoon system and associated civil works at the “P Lake” site is a minimum 2 construction season job and the earliest that a system could be commissioned is the fall of 2006.



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Nunalingni Kavamatkunllu Pivikhaqautikkut
Department of Community and Government Services
Ministère des Services communautaires et gouvernementaux



In the event that "P Lake" is not approved, CCS together with the Hamlet will examine other sustainable options for waste water treatment.

As you are no doubt aware, the Federal Department of the Environment recently provided information with respect to wastewater effluent quality guidelines for the City of Iqaluit. While there is no assertion that these guidelines would apply to other communities, it is worth noting that these parameters will be extremely difficult to attain through traditional sewage treatment options and may require the adoption of mechanical treatment systems. As you can imagine, the capital and operations and maintenance costs of these systems is often higher than traditional systems and the skilled work force to operate these systems is not resident in Nunavut. Forcing advanced infrastructure on small, isolated, northern communities with no tax base to generate revenues to offset operations and maintenance costs is a luxury that neither the Government of Nunavut can afford and by extension, nor our Federal partners.

I trust that this response satisfies your needs as outlined in the Inspector's Direction and that no further action will be taken against either the Hamlet of Cape Dorset or the Government of Nunavut. We will continue to involve Environment Canada, and indeed all relevant stakeholders as the planning, design and construction of the Cape Dorset sewage system evolves.

Sincerely,

Tom Rich
Deputy Minister

Art Stewart CARY MERRITT
Senior Administrative Officer (ACTING).

Cc Doug Sitland, Ddirector Capital Planning
Linda Tingley, Legal Counsel
Timoon Toonoo, Regional Director Baffin Region
Bruce Trotter, Senior Environmental Health Officer

Encl

P.O. Box 1000, Station 700 Government of Nunavut, Iqaluit, NU. X0A 0H0
☎ (867) 975-5300 T (867) 975-5330

3-Cell system

The current configuration for the Cell 1 only allows for a fraction of the potential capacity to be utilized. CGS in conjunction with the Hamlet, propose that another berm be constructed at the mid-point of Cell 1. Basically creating two cells from Cell 1. Figure 1 (attached) shows the approximate location of the proposed berms and the resulting cells.

Figure 2 shows what the new approximate volumes of the two cells will be as compared to the original cell. It is expected that the two new cells will have an increased capacity of 45%. There may also be the opportunity to further expand the capacity of Cell 1 through excavation. As preparations for the construction of the new berm commence, test pits will be excavated along the cell bottom to determine if it is possible to further excavate the cell to create additional capacity.

It is important to note that neither CGS nor the Hamlet have all physical properties of the existing 3-cell system. For example, the actual slope of the bottom of Cell 1 has been approximated based on current site conditions. After Cell 1 is decanted this summer, final dimensions can be obtained to verify the proposed work.

As witnessed this past winter, the wastewater would freeze before it was able to enter Cell 3 and therefore remained empty. There is currently a rough road that allows excess to Cell 2 & 3, but there is not a suitable working area for the sewer trucks to turn around and discharge. CGS and the Hamlet will examine any potential to increase the workability of this access area such that it would be safe for the operators to discharge their sewer trucks into Cell 2/3.

Old Honey Bucket Lagoon.

When the Hamlet was no longer able to discharge into the 3-cell system, they started to use the old sewage lagoon. The Hamlet placed additional fill along the roadside of the lagoon in hopes of increasing the capacity of the lagoon. Unfortunately, the volume seepage under the roadway kept the water level constant in the lagoon.

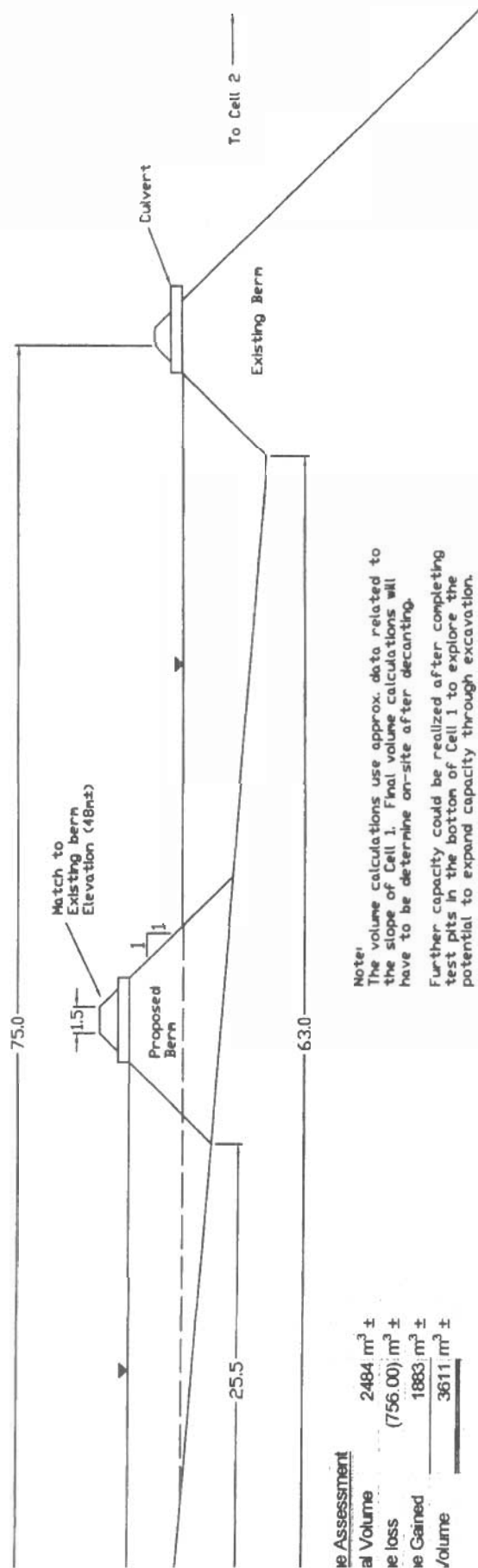
CGS & the Hamlet will examine the potential to increase the road height as a means to increase lagoon capacity. In order to accomplish this, the surrounding bedrock will have to be examined to determine the degree of fracturing to assess the potential for bypassing. Also, the existing roadway would have to be removed and a material placed in order to stem the seepage. The current road profile would allow CGS & the Hamlet to significantly increase the elevation of road surface. In essence, it would be proposed that we would use the road as a berm.

Another option that will be explored will be expanding the capacity through excavation. This lagoon will have to be decanted before work could be started, once it was decanted, test pits would be dug to determine if there was any potential to expand the lagoon through additional excavation.

It is important to acknowledge that the completion or success of all proposed works will be determined by:

1. Operator safety
2. Availability of resources (i.e. suitable granular material, equipment, etc.)
3. Regulatory Approvals
4. Suitability of on-site conditions

All efforts will be made to carry out the described work, however there may be circumstances (as listed above) that may limit or change the scope of work proposed. CGS and the Hamlet will ensure that open dialogue is maintained between all stakeholders such that any issues arise that require changes to the proposed work can be addressed in a reasonable amount of time.



Volume Assessment

Initial Volume	2484 m ³ ±
Volume Loss	(756.00) m ³ ±
Volume Gained	1883 m ³ ±
Final Volume	3611 m ³ ±

Overall gain in capacity of 45 %.

Figure 2. Proposed Berm Configuration for Cell 1

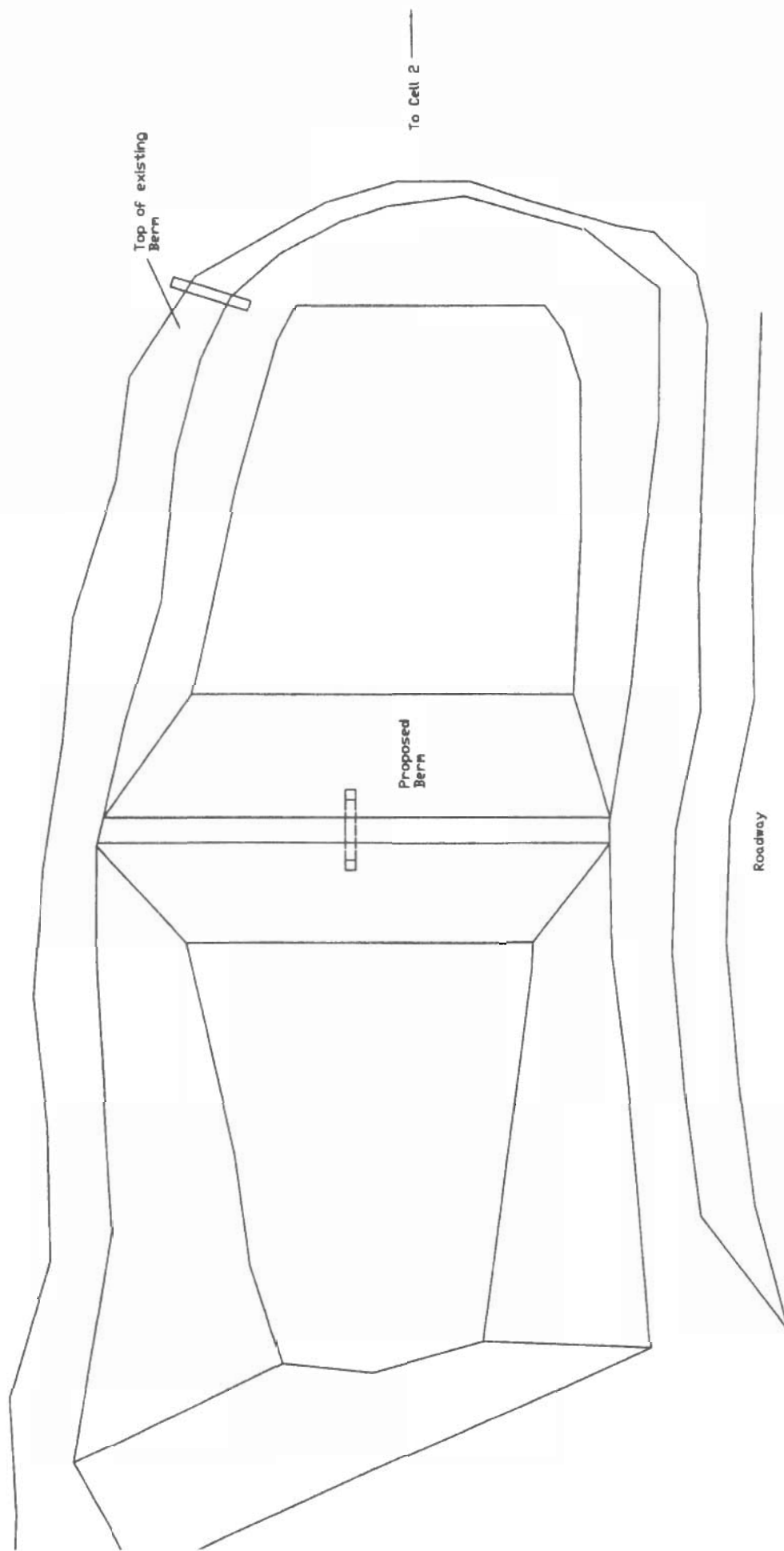


Figure 1. Proposed Layout for Expansion of Cell 1