

IN THE PRIVY COUNCIL

ON APPEAL FROM THE COURT OF APPEAL OF BELIZE

BETWEEN:

BACONGO

and

The Queen

and

The Department of the Environment

Belize Electric Company Limited

Appellant

1st Respondent

2nd Respondent

Affidavit of Anthony (Tony) Garel

Dated 16th July 2003 on behalf of the Appellant

I, Anthony (Tony) Garel of No. 17 Belmopan Heights, Belmopan City, Cayo District, Belize MAKE OATH AND SAY as follows:

1. I am the Chairman of the Belize Alliance for Conservation NGO's (BACONGO) the Applicant herein. I swear this affidavit on behalf of BACONGO in support of BACONGO's application to the Privy Council for an interim order with the effect of preventing further work being undertaken to implement the MRUSF until the Privy Council has considered BACONGO's substantive appeal.
2. BACONGO is an umbrella environmental organization, made up of nine separate entities across the entirety of Belize. It is a company incorporated under the Laws of Belize, and has been operating since 1994. It is well-recognized locally and internationally as an activist on behalf of the environment and public interest. Its constituent members include scientific experts, community leaders and advocates for a safe, healthy and sound environment for Belizeans and the wilderness of Belize; and for the rights of Belizeans to enjoy the

protections granted by Belize's laws for the protection of their environment. BACONGO is acting on behalf of the communities and individuals whose rights to a safe and healthy environment, including access to clean water would be affected by the proposed Chalillo dam project.

3. In this affidavit, I provide a brief overview of the history of the project and an update on the position as it was described in the affidavits which were placed before the Court of Appeal of Belize in relation to BACONGO's application for an injunction from that Court.

Chronology of Events

4. In 1994, the Mollejon hydroelectric dam was built on the Macal River, upstream of the village of Cristo Rey and the town of San Ignacio in the Cayo district of Belize. Constituent members of BACONGO conducted wildlife surveys for the EIA for this project, which is a "run of river" dam, meaning that there is little upstream area flooded by the dam.
5. Belize Electricity Company Limited (BECOL) owns and operates the Mollejon dam in Belize. Belizeans pay the highest electricity rates in all of Central America approximately 19 cents US per kilowatt hour—twice as much as our neighbors in Mexico and Guatemala, and more than three times as much as electricity customers in Canada. Electricity from the Mollejon dam costs 10 cents US per kilowatt hour, the highest price for generation in Belize's system, aside from the relatively small amount of peak energy purchased from Mexico.
6. In late August 1999 BECOL submitted an EIA on the "Chalillo dam" project to the Department of Environment (DOE) for evaluation by the National Environmental Appraisal Committee (NEAC). The EIA was conducted by the Canadian subsidiary of UK-based AMEC, Inc.

an environmental consultant and large construction company. The project, formally known as the “Macal River Upstream Storage Facility” would be a 49.5 meter high concrete dam upstream of the Mollejon dam at a site called Chalillo. Maps depicting the location of the river, the proposed dam, and downstream towns and villages are shown to me and marked A.G. (1), A.G.(2) and A.G.(3) for identification. A.G.(1) is a 1:250,000 scale map of Belize; A.G.(2) is a close-up of the Cayo district, including the site of the proposed dam; A.G.(3) is a rendering by scientist Jan Meerman of the area that would be flooded by the proposed dam.

7. The project is known as the “Chalillo dam”, and its main purpose would be to store water during for the downstream Mollejon dam. The dam would flood the Upper Macal River Valley and Upper Raspaculo river, including parts of the Chiquibul Forest Reserve and the Chiquibul National Park. The area that would be flooded is known to biologists, including expert members of BACONGO, as one of the wildest and most biologically diverse areas left in Central America. The area also includes many unexcavated ancient Maya archaeological sites. The 1999 EIA for the Chalillo dam included no wildlife studies and little, if any, archaeological information, and was rejected by NEAC.

7. In 2000, Fortis, Inc. of Canada increased its ownership of Belize Electricity Limited (BEL) which distributes all of Belize’s electricity to 68%, and in January 2001, it also purchased a 95% interest in BECOL, owner of the Mollejon dam and promoter of the MRUSF.

9. On November 21 2001, BEL, BECOL and the government signed a set of agreements concerning the Chalillo dam, collectively known as

the “Third Master Agreement”. A relevant extract from this “Third Master Agreement” is shown to me and marked A.G. (4) for identification.

10. As part of these contracts, the Government of Belize “represents and warrants” in section 6.1 that:

“ it is authorized and empowered by the provisions of the Constitution of Belize or any other law now in force to (i) preempt the authority and jurisdiction that any local, regional, municipal, or federal government or agency of Belize may have over the construction, ownership, financing, operation and maintenance of the Mollejon Project and the New Project and (ii) obtain or waive on behalf of the Producer and its contractors any licenses, permits, consents and regulatory approvals necessary in connection with the ownership, financing, construction operation and maintenance of the Mollejon Project and the New Project”

11. Further, under section 6.2:

“Waivers The Government hereby covenants and agrees to waive or to the extent not waiveable, to promptly grant or cause to be granted in the name of the Producer or its Contractors, any and all licenses, permits, consents and regulatory approvals necessary or required in connection with the construction, ownership, financing, operation and maintenance of the Mollejon Project by the Producer and its Contractors pursuant to any law, rule or regulation of Belize. There shall be no actions necessary on the part of the Producer or its Contractors to effectuate the forgoing.”

12. Under sections 7.1 and 7.2:

“Compliance with Environmental Laws The Government covenants and agrees to waive or cause to be waived, and indemnify the Producer against any private action under or with respect to any and all environmental laws or regulations now existing, or created hereafter, to which the Mollejon Project and the New Project may be subject other than any laws, rules or regulations set forth in the Mollejon Project Compliance Plan and the New Project Compliance Plan, as the case may be to which the Producer has agreed to be bound.

7.2 New Project Environmental Plan. An environmental impact assessment for the New Project has been prepared on behalf of and at the Producer’s expense and has been submitted to the Government’s Department of the Environment for its approval. The Government and the Producer *will jointly develop a mutually agreeable* environmental compliance plan for the New Project (the “New Project Compliance Plan”). As promptly as practical after the establishment of the New Project Compliance Plan, the Producer will take such steps as are necessary to comply with such plan.” [emphasis added]

13. In January 2002, construction began on the access road to the Chalillo dam site. Construction of the access road is described in the EIA as the first step in the construction phase of the project. Affidavits by Mick Fleming (February 8, 2002) and Candy Gonzalez (February 9, 2002) on behalf of the Applicant (Appellant) confirmed that survey lines had been cut into the trees at the dam site, and that construction on the access road to the site was underway.
14. In February, BACONGO, along with Maya researcher Greg Sho, researcher Sharon Matola, and the Belize Ecotourism Association filed for leave to appeal for Judicial Review of the decisions by

NEAC and/or DOE to grant “conditional” environmental clearance. The aforementioned co-applicants withdrew, when it became apparent that BACONGO would be granted the requisite standing to bring the judicial review proceedings.

15. In resisting BACONGO’s application for leave, BECOL argued that the application was delayed, as it was nearly three months since the November 9 decision by NEAC, and that it would prejudice ongoing work on the project.
16. The Chief Environmental Officer, acting on behalf of the government filed an affidavit, dated February 26, 2002 urging the court to dismiss BACONGO’s application for leave. A copy of this affidavit is shown to me and marked A.G.(5) for identification. In this affidavit, the Chief Environmental Officer stated that:

“From the date of the approval of the environmental impact assessment the Government of Belize has expended approximately US\$700,000 in connection with the Macal River Upstream Storage Facility Project and to grant leave for Judicial Review and stop the projects would seriously prejudice the interest of the Government in view of the substantial investment undertaken by the Government after the approval of the Environmental Impact Assessment.”

17. It is this expenditure of money that one of the learned Appeals Court Justices relied upon (Justice Motley, paragraphs 12-14) in deciding that overturning the decision to approve the dam would be counter to the interests of good administration.
18. The grant of approval for construction was not given by DOE until April 5, 2002, and therefore any construction on the project before this date—including construction referred to in the affidavit of the Chief Environmental Officer in his February 26, 2002 affidavit—was

undertaken at the developer's own risk, and arguably illegal (i.e. in violation of section 22(2) of the Environmental Impact Assessment Regulations, 1995). The Chief Justice of the Supreme Court and President of the Appeals Court emphasized that the decision of NEAC was not a grant of permission for construction: e.g. para. 19 of the C.J.'s decision and para 15 of the decision of the Appeals Court President, J. Rowe.

Requests for undertakings and applications for interim relief

19. Throughout the course of this case, BACONGO has done its utmost to preserve the subject matter of the case and to request an undertaking that construction would not go forward before the case was resolved by the courts. In June 2002, when it appeared that work had commenced on transmission lines from the Chalillo site, BACONGO instructed its attorney, Lois Young Barrow, to write to BECOL asking for an undertaking not to engage in further construction. This letter is shown to me and marked A.G. (6) for identification. A further request was made in December 2002 BECOL's attorneys refused to offer any undertaking. These letters were exhibited to my affidavit filed April 16, 2003 on behalf of BACONGO's application for interim relief before the Belize Court of Appeals, as T.G.(1) and T.G(2) respectively.
20. On December 19, 2002, C.J. Conteh issued his ruling in the case. The C.J. ordered the Department of Environment to hold a public hearing, but did not overturn the decisions approving the project. BACONGO appealed this decision to the Belize Court of Appeals.

21. In my 16th April, 2003 affidavit I described the sequence of events following this decision at paragraphs 7 through 12. I refer the Court to those paragraphs.
22. By letter dated 22nd May 2003 Lois Young Attorney-at-law, wrote to Michael Young, Attorney-at-law for BECOL, and asked to be informed of BECOL's construction schedule. No response to this letter has been received. A copy of this letter dated 22nd May 2003 is now produced and shown to me and marked A.G.(7) for identification.
23. BACONGO filed once again for interim relief before the Belize Court of Appeal, pending the hearing and decision of the case by the Privy Council. The hearing on this injunction application was to be held on Wednesday, June 18, 2003. The hearing was delayed and heard on Friday, June 20, 2003. The Appeals Court determined that it did not have jurisdiction to grant the relief requested and issued an Order on June 25, 2003 to this effect, with no order as to costs. This Order is hereby shown to me and marked A.G. (8) for identification.

“Macal River Hydroelectric Development Act, 2003” passed by legislature

24. In the week preceding the hearing on BACONGO's application before the Appeals Court for interim relief Belize's legislature took up the “Macal River Hydroelectric Development Bill, 2003”. The House held all three readings in one day, Friday, June 13, 2003. The Senate passed the act early the next week over the objections of all Senators who are not members of the ruling party—the deciding vote was cast by the

President of the Senate in favor of the Bill. The Act was signed into law by the Governor General on Wednesday, June 18, 2003. To my knowledge, this was the fastest a bill has been passed into law in Belize's history. The measure of having all three readings in the House on one day is highly unusual, and it appears to have been done in order to have the bill ready by the date of the Appeals Court hearing on BACONGO's application for interim relief.

25. The passage of the "Macal River Hydroelectric Act" also generated a strong public outcry. Many of the major media outlets, with the exception of the ruling-party newspaper, the "Belize Times", expressed outrage and concern over what they characterized as an undemocratic law.
26. The most widely viewed national news program, on Channel 5, echoed the words of the leader of Belize's Opposition, Dean Barrow, who called the new law "wrong and utterly perverse". The report then states: "Actually, this may be one time when Barrow's hyperbole came up short. The fact is that, whether you like Chalillo or not, this bill may be the worst piece of legislation ever passed by the House of Representatives." A copy of a transcript of this report is hereby shown to me and marked A.G.(9) for identification.
27. Editorials in the Belize Reporter newspaper also opposed the bill. In an editorial by Meb Cutlack entitled "Government Running Amok" described the law as a " 'rogue' government gone wild". A copy of this editorial is hereby shown to me and marked A.G.(10) for identification. Similar editorials opposing the new law have appeared

in the Amandala and the Guardian newspapers—all the major newspapers with the exception of the Belize Times.

Construction Underway: construction of cofferdam, blasting and dumping

28. On May 28, 2003, BECOL held a “groundbreaking” ceremony with company officials from Fortis in Canada on May 28, 2003, signalling the commencement of construction of the Chalillo dam.
29. By letter dated May 30, 2003, I wrote to the Chief Environmental Officer, on behalf of BACONGO, and requested the following information within 7 days:
 - “1. What construction activities are planned by BECOL on the Chalillo project? What is the schedule for these activities?
 2. What measures is the DOE taking to monitor any of these activities?
 3. What geological studies have been done of the dam site following the submission of the EIA for the project? BACONGO requests that you provide a copy of these studies, including a study that we understand was conducted by Jean Cornec.
 4. What archaeological work, if any, has been conducted on the areas that would be impacted by the project beyond that which was reported in the EIA?”

This letter was exhibited to my second affidavit, of June 2003 a exhibit T.G.(3).

30. By letter dated June 10, 2003, BACONGO received a dismissive response from the DOE, answering none of these questions, and referring BACONGO to the Environmental Clearance Plan (ECP). This letter is shown to me and marked A.G.(11) for identification.

However, the ECP simply defined the overall basis on which the project was to proceed and did not purport to say precisely what would happen when; much less does it reflect what, so far as I have been able to establish, has actually happened.

31. In an affidavit dated June 12th, 2003 filed on behalf of BECOL, Lynn Young states at paragraph 1 that *“with the objective of enabling work on the Project to be carried out during at least a portion of the rainy season and thereby to avoid losing an entire additional year, BECOL has engaged a contractor to build a cofferdam at the site for a sum exceeding BZ\$250,000 and the construction of the cofferdam is now underway. Time is critically of the essence and it is essential that the cofferdam be completed as soon as possible.”*

That process is not what was contemplated by the ECP which had, instead envisaged that construction of a cofferdam would not begin until the second dry season of construction, close to a year after the foundation preparation had been completed. In addition, the foundation preparation itself, and construction of the diversion structure were to be done in the dry season.

32. In any event, construction at the site has indeed begun at the beginning of the rainy season and, to my knowledge, is ongoing. A photograph taken just a week after the “groundbreaking” ceremony shows that a major swath of forest has been cut on the banks of the river, apparently to make way for large construction equipment and/or a dam structure. A copy of this photograph is shown to me and marked A.G.(12) for identification. Photographs taken a few weeks after construction show considerable decimation of trees and alteration of the river site. A copy of these photographs are shown to me and marked A.G.(13) and A.G.(14) for identification.

33. In addition, reports in Belize's news media describe massive construction equipment being employed at the site, with more than a hundred workers building a cofferdam intended to allow continuous construction through the rainy season. A July 8, 2003 article entitled "Chalillo Challenge is Underway", published in the ruling party-owned newspaper, the Belize Times, describes the furious pace of construction. A photograph in the article shows a large dump truck and crane at work at the site. The article states that:

"Excavators, dump trucks, tractors, loaders and drilling equipment are only a few of the mechanical marvels already at work drilling, blasting, loading, dumping and carrying away rocks and gravel from the dam site."

A copy of this article, obtained from the Belize Times website, is shown to me and marked A.G. (15) for identification.

34. The article states that construction of a coffer dam would be completed within a week, allowing construction throughout the rainy season. The rainy season begins in May and continues until December or January. Due to heavy rains recently, it is unclear whether this structure has been completed.

"Cisco Construction, a Belizean engineering company, reports that their part of the project is expected to be finished by the end of next week. They are tasked with creating a protective water barrier within the riverbanks, which will allow work to continue even during the heavy rains and flooding of the wet season."

35. The article further describes the ongoing work by the Chinese construction company, including construction of housing facilities for

more than three hundred workers, and the operation of a power generator near the site, with water and sewage lines being built:

“They are positioning themselves and their workforce across the road from the Augustine Pine Ridge Station, some 28 miles from San Ignacio, Cayo. Construction of dwellings for up to three hundred Belizean workers and Chinese technicians are in progress. A temporary generator is providing power and water and sewerage lines are being placed in the ground.”

Construction out of season: violates schedule in EIA

36. The construction plans described in the Belize Times article, and in the June 12th affidavit by Lynn Young are significantly different from those described in the EIA [and ECP] that was approved by NEAC and DOE. The construction schedule appears to have been accelerated dramatically, and construction that was planned for the dry season is now going forward during the rainy season. This would appear to create a safety risk to workers, as well as a risk to downstream communities in the event that rains wash the construction works downstream. In addition, the significant clearing of trees at the river bank poses a serious erosion risk, that would not have been anticipated if construction took place in the dry season.
37. The EIA Main report, at pages 33 to 61 includes a description of the original construction plan, including maps of the stage of construction in each of four seasons: the first dry season, the first wet season, the second dry season, the second rainy season. At pages 29 to 33, there is

a summary of some of the impacts to be expected during the construction. An excerpt of the EIA from pages 29 to 61 is shown to me and marked A.G.(16) for identification. A schematic of the construction schedule is to be found at figure 3-9. This is shown to me and marked A.G.(17) for identification.

38. In reviewing these schedules and plans, it appears that the actual construction plan being undertaken by BECOL is dramatically accelerating the pace of these plans, giving rise to significant questions of safety and quality control. As the DOE has refused to answer BACONGO's request for information on the monitoring of these construction activities, it is impossible to know how environmental damage is being mitigated given this new construction plan that deviates from that described in the EIA. The apparent schedule of construction appears to differ from that proposed in the EIA in that:
 - A. Construction on the coffer dam has begun in the rainy season, not in the dry season, posing risks of erosion, worker safety, and safety of downstream communities.
 - B. Construction of housing for workers was to precede construction on the project. These are being carried out simultaneously, meaning that workers may not have proper and adequate housing and sewerage facilities, placing an additional strain on the local environment. It is not clear where these workers are being housed at this time, or under what conditions.

C. Construction of the foundation for the cofferdam was to be conducted in the dry season approximately one year after commencement of the project. It appears, according to Lynn Young's affidavit of June 12, that the coffer dam is now being built, condensing the entire construction schedule by a year. This schedule reduces the time available to properly implement mitigation measures. Similarly, preparation of the dam foundation was to be done over the course of an entire dry season. If this work is now being done in the rainy season, in a rushed schedule, it is less likely that BECOL will be able to properly assess and prepare the dam foundation for safe construction of the dam. The rushed nature of the construction adds to the grave doubts that Dr. Richard Goodman and other engineering geology experts have expressed about the stability and safety of this dam, being built on the basis of inaccurate geological studies (see affidavits of Brian Holland and affidavits of Dr. Richard Goodman). .

39. In my affidavit dated April 16, 2003, I set out the reasons BACONGO was seeking interim relief, and the irreversible damage that would occur if dam construction were allowed to proceed. It is clear from the evidence explained above of clearing of forest areas, and descriptions in the media of blasting, dumping and other construction activities with heavy machinery and hundreds of construction workers at the site, that significant damage is currently being done. The damage to the environment and wildlife, and the health and safety risk to downstream communities will continue to increase if construction is allowed to continue until the substantive hearing of this case.

Delay or failure to carry out studies required in the ECP and EIA

40. The Environmental Compliance Plan (ECP), signed on April 5, 2002 for the Chalillo Project requires a number of studies to be conducted. These include studies of the dam site geology, archaeology, and certain “experimental” mitigation measures. The studies of the dam site geology were to be done, according to para. 6.51.1 of the ECP, within three months of signing the ECP and prior to the beginning of construction. To my knowledge, these studies have either not been done, or not been made available to the public—including BACONGO’s member on NEAC.

41. The archaeological studies of the area that would be affected have also not been done. It is BACONGO’s view, bolstered by the opinions of leading Maya archaeologists, that these surveys should have been conducted before a decision to go forward with the project—the dam site is not far from Caracol, one of Belize’s premier Maya sites, and it is likely that unlooted, Maya sites of immeasurable value would be destroyed by the project. We cannot know this until further archaeological studies are conducted. As the EIA states in Volume IV of IV, Archaeology—Reservoir Area, page 10: “...Belize’s cultural resources are non-renewable and once destroyed, are lost forever (both sites and information).”

42. Considering this, it is of great concern that, to the best of my knowledge, the archaeological studies outlined in the ECP were not carried out in the year since the ECP was signed. These studies are strictly time limited as, according to the ECP plan, the sites would be

flooded when the dam construction is complete regardless of the state of the completion of these studies. Despite this time limitation, to my knowledge as of the date of the “groundbreaking” on the dam project in May 2003—more than a year after signing the ECP—no further archaeological surveys had been conducted in the area that would be affected by the dam. This delay raises grave doubts about the seriousness of BECOL and DOE in following through on the commitments of the ECP.

43. Similarly, the ECP requires additional studies of the geological foundation of the dam. At paragraph 6.51, the ECP states “Also, prior to commencement of dam construction, all additional geotechnical assessments conducted and associated with implementation of the project shall be submitted with the detailed engineering designs. These studies and designs have either not been completed, or not been made available to the public. These studies were required by NEAC due to concerns that the original studies of geology were inadequate and inaccurate, and would not form a sound basis to design a dam that would be safe and viable. BACONGO has repeatedly asked, in writing and orally, the DOE, the PUC and BECOL for a copy of these studies, if they have been conducted. To my knowledge, to date, BACONGO has not received any response to these requests.

Wildlife studies relegated to the ECP

43. The ECP also describes, at para. 2.03 a “pilot” project to examine the effectiveness of artificial nest boxes for the subspecies of scarlet macaw (population < 200 in Belize) that would be threatened by the dam. As noted by various experts, including Sharon Matola in her affidavit of June 2003 at para. 7-9, such an artificial nest-box program has never had success with scarlet macaw—which is highly loyal to

its own nest.

44. At para. 2.06 the ECP requires BECOL to “investigate” fish friendly designs for its turbines, to reduce mortality of fish. It is BACONGO’s view that these results of these studies, and those above should have been available to NEAC/DOE previous to granting clearance on the project. This is particularly true for the proposed mitigation measure for the scarlet macaw, as it is threatened by extirpation (i.e. local, and perhaps total extinction) by this dam project, according to the report of the Natural History Museum of London.

Likely impacts if construction continues pending a full hearing

45. The following impacts will likely occur if construction is allowed to continue, pending a full hearing:
 - Destruction of rare and/or endangered species of plants
(see the EIA, Page 186 of Vol. 6 of the Main Report, cited at para. 27 of my April 16, 2003 affidavit)
 - Destruction of one of the most important habitat areas for wild cat species in the neotropics (see affidavit of Marcella Kelly)
 - Mortality of rare and/or endangered wildlife species’
(see affidavits of Marcella Kelly especially para. 12, and Sharon Matola especially para. 7,9,12; my affidavit of April 16, 2003 para. 23 to 26 citing the executive summary of the Natural History Museum of London’s wildlife assessment)
 - Irreversible trauma to wildlife species which have not been accustomed to human activities, causing a further reduction in the usable habitat for many of these species.
(see affidavit of Marcella Kelly para. 13; Sharon Matola para 7,8,9,12; my affidavit of April 16, 2003 citing the executive summary of the Natural History Museum of London’s wildlife assessment, especially para. 28)
 - Erosion of the banks of the river where construction is underway during the rainy season.

(this affidavit, para. 35 and 37; affidavit of Daniel Sosa)

- Pollutants, debris, silt adding to deterioration of water quality for downstream residents.

(see this affidavit, para. 35 and 37; affidavit of Phyllis Dart para. 7 ; affidavit of Luis Godoy para. 9; affidavit of Daniel Sosa para. 9 and 10)

- Risk of the collapse of construction structures, especially due to accelerated construction schedule and construction during the rainy season.

(see affidavit of Daniel Sosa para.6, 7; affidavits of Richard Goodman; affidavit of Luis Godoy para. 9)

- Drilling, blasting, clearing, grubbing—i.e. ongoing construction activities— and subsequent flooding, will affect the integrity of Maya sites

(EIA, pages 201 and 232 of Volume 6 of the Main Report, cited at para. 21 of my affidavit of April 16, 2003)

46. In addition, advancement of construction under the current conditions—i.e. in the absence of adequate geological, archaeological, plant and wildlife studies, and without a proper public hearing—seriously undermines the value of conducting of these studies and public hearing. The studies and public hearing are meant to influence the decision of whether or not to approve the project in the first place, and if the project is approved, would structure the conditions under which it is approved. To the degree that construction advances in the absence of the studies and a hearing, BACONGO's appeal is rendered nugatory.

47. A proper public hearing, with adequate notice, would have allowed presentation of information, inter alia, on:

(a) the adequacy (or otherwise) of the geological studies and engineering design for the dam. This would have included testimony

from world-renowned engineering geology expert Dr. Richard Goodman on the inadequacy of the existing studies to ensure the safety of the dam design.

(b) the adequacy (or otherwise) of the hydrological studies for the dam. This would have included testimony from hydrologist Chris Bowles on the lack of basic information necessary to assess the energy production potential of the dam, and therefore its economic viability.

(c) the effects of the dam on water quality for downstream residents. This would have included testimony from Dr. William Eaton on the impacts of the existing Mollejon dam on water quality in the Macal River, and likely effects of the Chalillo dam.

(d) new information on the density of wild cats in the area to be affected by the dam. This would have included testimony by Dr. Marcella Kelly on her research, done after the EIA was completed, showing that the area that would be affected by the dam may include the highest density of wild cats, including many rare and/or endangered species, in the neotropics.

(e) the adequacy (or otherwise) of the archaeological studies for the dam. Leading archaeologists, including Keith Prufer, have found unlooted Maya sites in the area that the dam would affect, and could present their views of the need for additional studies before a decision is taken on whether to build the dam, flood the area and destroy these irreplaceable, and potentially priceless Maya sites.

48. The NHM report, with a cover letter by the Natural History Museum's director of Botany, Richard Bateman was sent to BACONGO upon

our request. An executive summary of this report is shown to me and marked A.G.(18) for identification. As explained in paragraph 26 of my affidavit of 16th April 2003 (in the Belize Court of Appeal) the NHM found that the dam is likely to cause:

- “significant and irreversible reduction of biodiversity in Belize, initially at the population level but later potentially at the species level, some of the species affected being of international importance.
- Fragmentation of the proposed Mesoamerican Biological Corridor
- Rapid reduction in the already endangered population of the Scarlet Macaw subspecies (*Ara macao cyanoptera*), leading to population inviability and probable eventual extirpation from Belize
- Reduction in nutrients and essential biological debris materials that facilitate the productivity of downstream ecosystems
- Negative impacts on biodiversity and ecological interactions extending well beyond the dam and its impoundment
- Serious negative (and probably long term) accumulative impacts from illegal hunting and settlers as a result of increased access to the area caused by improved roads and more navigable waterways.”

49. To the best of my knowledge the concerns expressed by the NHM above continue to be accurate, and if anything, the accelerated construction schedule that BECOL seems to be undertaking, should only increase concerns regarding environmental impacts of construction.

Impacts on ancient Maya structures downplayed by BECOL

50. In affidavits opposing BACONGO's application for interim relief, BECOL has downplayed the evidence of destruction of archaeological sites. In his February 2003 affidavit, Mr. Lynn Young states at paragraph 32 that:

“The allegation in Paragraph 9 of AG's affidavit that the construction of the dam will destroy eight (8) Mayan archaeological sites is not accurate. None of the archaeological sites is within the footprint of the dam and only one site may be affected when the flooding of the area occurs.”

51. This claim is refuted by the numerous Maya sites, including a number of large sites, described in the area that would be affected by the dam in the archaeological surveys described in the EIA, particularly in the “Baseline Data—Reservoir Area”, in Volume IV of IV of the Appendices to the EIA. I refer extensively to this report in my second affidavit of June 2003 to which I refer the court. Many sites were identified in these studies despite their relatively cursory nature nature studies (a few random transects were evaluated). It is therefore quite likely that a more extensive study would reveal many more sites and would allow time to evaluate the extent of settlement by the Maya in this region, heretofore virtually unstudied.
52. There is therefore ample evidence in the EIA for Maya sites that would be affected by the dam, contrary to Mr. Young's assertion in his affidavit that there are none. Joseph Sukhnandan, BECOL chief engineer, in his affidavit 17th June, 2003 (para. 10) attempts to support Mr. Young's claim by stating that Mr. Young's statement referred to a lack of Maya sites in the “footprint” of the dam. Mr. Sukhnandan goes on to misleadingly assert that the “footprint” of the dam is only the site of dam construction, comprising only 1/75 of the area affected by the project. In fact, however, the “footprint” of the dam is defined

in the EIA Main document, page 31, as including the entire area affected by the project:

“the entire physical ‘foot print’ of the MRUSF including the proposed dam and powerhouse, the reservoir, the power transmission line and surrounding upstream and downstream areas.”

This is the standard definition of the term “footprint”, and the fact that Mr. Sukhnandan, Chief Engineer of the project would misinterpret such a basic engineering term in his affidavit undermines his credibility or expertise, or both.

Impacts of project construction on wildlife and scarlet macaw: mitigation measures proposed are known to be ineffective

53. In an affidavit filed in support of BACONGO’s Motion before the Belize Appeals Court in June, Sharon Matola refutes the claims by Lynn Young that the project’s effects would be mitigated by an artificial nesting program. Ms. Matola is the Director of the Belize Zoo and Tropical Education Center, a member of BACONGO, and renowned expert on the wildlife of Belize. I refer the court to paragraphs 10-13 of her affidavit, in which Ms. Matola unequivocally states that, “there has never been a successful wild artificial nesting program for the species, as is being proposed in the ECP”.

Risk to Public Safety and Indemnification of BECOL

54. In paragraphs 17-27 of my second affidavit filed in June 2003 in support of BACONGO’s Motion for interim relief, I detail some of the additional risks to public safety from the dam, and concerns about CWHEC, the Chinese company contracted by BECOL to build the

dam.

Economic damage from the project

55. Ambrose Tillett, an expert in energy planning, has challenged the economic justification for the dam in a report submitted to the National Environmental Appraisal Committee (NEAC) after the EIA was released, and in affidavits in support of BACONGO's motions for interim relief.

56. It is his professional opinion that the Chalillo dam project is fundamentally bad for the people of Belize. In brief, the dam would be built at a cost of approximately US\$30 million. It would provide only a small amount of fixed capacity, a term used to describe a reliable source of electricity. The Power Purchase Agreement between BECOL and BEL includes a so-called "priority dispatch" clause stating that all energy must be purchased from the Chalillo and Mollejon dams before any other source. This means that even when less expensive power is available, BEL (and therefore Belizean customers) must buy electricity from the dam first. Because of the high relative construction costs, and this "priority dispatch" clause, the construction of the dam would create a financial disincentive for the development of other, less expensive and more reliable sources of electricity: investment in other sources could not compete on an equal footing, since the energy from the Mollejon and Chalillo dams—even if more expensive— would have to be purchased first.

57. Belize currently purchases electricity at subsidized rates from Mexico, through transmission lines that were built at a cost of US\$40 million. The energy from Mexico is purchased at low rates for approximately 21 hours per day (the "off-peak" period), and at higher rates for the

remaining 3 hours (the “peak” period). The majority of electricity from the Chalillo dam (more than 90%) would be produced during the off-peak hours. Because of the “priority-dispatch” clause, Belize purchased energy from the Mollejon dam at times when it would have been more advantageous to purchase from Mexico, costing Belizeans—according to calculations by Ambrose Tillett—approximately \$1.5 million US last year.

58. Energy from the Chalillo project would also be sold under a “priority-dispatch” clause. Even if energy rates from Mexico rise, Ambrose Tillett calculates that this “priority dispatch” clause would mean that BEL would pay an average of \$1 million more each year by purchasing energy from the dam, compared with energy from the least expensive source available. This would inevitably lead to a rising of the cost of power for Belizean consumers, who already pay the highest rates of electricity in Central America.
59. In addition, the contract governing the Chalillo dam construction would make Belizeans pay for energy that was not produced by the dam due to either water spilling over the dam, or to control of the flow of water for environmental purposes. In addition, the lack of adequate hydrology data raises the risk that, like the Mollejon dam before it, the dam would not produce the amount of energy projected by its proponents, further raising the relative cost of the electricity that it does produce.

BECOL’s exaggerated claims of loss

60. In paragraphs 46 – 55 of his affidavit of 3rd June 2003, Lynn Young, Corporate Director of BECOL set out that company’s claims as to the

consequences of delays and alleged further consequences of an injunction being granted by the Court of Appeal. As I explained in my affidavit of June 2003 many of those claims either either (a) place reliance on expenditure and commitments which were made before BECOL had received the necessary clearances (and thus at its own risk), (b) cite effects that were quite independent of any purported delay in this project, or both. For example:

- In paragraph 46 Mr. Young states that power was cut to customers in May (2003) because of shortages in Mexico. In fact, a May 20, 2003 press release by the Public Utilities Commission (exhibited at paragraph 8 to my June 2, 2003 affidavit as T.G.(10)) states that power outages in May “*were attributable to abnormal Transmission and Distribution (T&D) faults and not a capacity deficiency in most instances.*”
- In paragraph 47 Mr. Young states that “if the Chalillo project had not been delayed as a result of the Court challenges initiated by BACONGO”, BECOL would not have rented standby diesel generators and purchased a new gas turbine. In fact, the gas turbine purchase was described in BEL’s “request for proposals” (RFP) for energy generation, dated January, 2002, a month before BACONGO filed for leave in this case. The expense associated with this turbine was part of BEL’s original plans and cannot be attributed to BACONGO’s court actions. The RFP states on pages 3 and 4 that “With respect to the generation additions slated for 2002, BEL has determined that this should be a Gas Turbine Unit fired by #2 diesel fuel”.
- Mr. Young also claims that BACONGO’s court actions resulted in BEL renting three diesel units in January 2003, at a cost of \$2.1 million. Here, it is important to note that BECOL had not yet applied for or obtained the necessary Consent from the

Public Utilities Commission. Therefore any construction on Chalillo before January 2003 would have been illegal, regardless of BACONGO's court challenge to the EIA.

61. In any event, a review of the history of this case indicate that the statements made by the Respondents should be considered with skepticism. In particular, the claims of the Respondent projecting great financial harm appear to have been greatly exaggerated.
62. For example, the affidavit of Lynn Young filed in February 2003 at paragraph 20 stated that:

“BECOL has contingently (the contingency being based on time) secured a price for the construction of the dam and powerhouse from a potential contractor and unless the contract is urgently concluded BECOL will lose the opportunity to contract the works at the particular price. From the exploration and negotiation process which BECOL has undertaken, it is definitively the position that if this tentative price [for contracting the construction of the project] is not secured by signing of the contract, the cost of contracting the works will increase by approximately Seventeen Million US dollars. There is a very real possibility that with this increase in price of construction the project will no longer be viable and will have to be abandoned.”
63. Mr. Young's claim was not borne out. In his affidavit of June 3, 2003, Mr. Young states (para 48) that the contract for construction was signed after the Appeals Court decision (March 31, 2003), and

therefore after the date until which the earlier injunction, if it had been granted, would have applied.

64. There is no evidence that this delay has resulted in any increase in price, and certainly not the US\$17 million increase in price Mr. Young claimed in his earlier affidavit. Nor did the delay lead to the cancellation of the project. In fact, in the June 13 2003 affidavit, Mr. Young states that the cost of construction of Chalillo is currently estimated at US \$30 million and that this price estimate “underpins the price offer by BECOL [for electricity from the Chalillo dam]” (para. 29). Though Mr. Young provides no evidence for the \$30 million figure he cites, it is apparent from his statement that the cost of construction has not significantly increased from BECOL’s original estimates in November 2001: The price for power was set in the “Power Purchase Agreement”, contracted between BEL and BECOL in November 21, 2001 as part of the aforementioned “Third Master Agreement” (see para. 15 above). Since the current cost of the project still “underpins” these prices set in November, 2001, it is apparent that the cost has not materially changed as a result of any delays.

Respondents’ inaccurate statements and withholding of information

65. In addition to the claims of financial loss which were not borne out, the history of this case demonstrates numerous instances of the inaccurate or misleading portrayal of the facts and withholding of key information by the Respondents. These relate to both the nature of

approvals for the project, and to the extent of damage that would be caused by the project:

66. For example, the Chief Environmental Officer (of the DOE), in an affidavit before the court dated February 26, 2002 (A.G.(5)) stated (para 2) that approval for the EIA had been granted. In later court arguments in July 2002, counsel for the DOE stated that approval had not yet been granted. In fact, final approval of the project had been given by the DOE in a letter by the Chief Environmental Officer dated April 5, 2002. But, at no time before the July 24, 2002 affidavit, whether in the correspondence between BACONGO and BECOL and DOE, discussions at NEAC with BACONGO's representative, or in court proceedings, was the existence of this April 5 decision mentioned.
67. As mentioned earlier in this affidavit, and of particular concern, is the fact that that statement of the Chief Environmental Officer from February 26, 2002, was relied upon by one of the Justices of the Court of Appeal for his decision that good administration (given that the government had already spent US\$700,000 dollars on the project) required that the project be allowed to go forward. Also as I mentioned earlier, this construction was done before final approval was given by the DOE on April 5, 2002.
68. In addition, the construction on the project referred to by Mr. Fabro would have been counter to the requirements of Belize's Electricity Act. The Electricity Act section 51 makes it an offense to construct, extend or operate a generation station of capacity greater than 75kw without a Consent from the PUC. At the time of the Chief Environmental Officer's statement, Consent for the project had not been requested or granted.

69. In February 2003—a year after the statement by the Chief Environmental Officer referring to construction on the project—BECOL applied to the PUC for Consent to build the Chalillo dam. To my knowledge neither the PUC nor BECOL had acknowledged the requirement for Consent prior to this.

Sworn to by the above-named)
Anthony Garel at Belize City,)
Belize)
on the day of July)
2003)

Anthony Garel

Before me,
