

PCA Case No. 2012-06

IN THE MATTER OF AN ARBITRATION

**PURSUANT TO ARTICLE XIII OF THE AGREEMENT BETWEEN THE GOVERNMENT OF
CANADA AND THE GOVERNMENT OF BARBADOS FOR THE RECIPROCAL PROMOTION
AND PROTECTION OF INVESTMENTS, SIGNED ON 29 MAY 1996**

-and-

**THE UNITED NATIONS COMMISSION ON INTERNATIONAL TRADE LAW
ARBITRATION RULES AS ADOPTED IN 1976**

-between-

PETER A. ALLARD

The Claimant

-and-

THE GOVERNMENT OF BARBADOS

The Respondent

AWARD

Date: 27 June 2016

Place of Arbitration: The Hague

Tribunal

Dr. Gavan Griffith QC (President)
Professor Andrew Newcombe
Professor W. Michael Reisman

Secretary of the Tribunal

Ms. Evgeniya Goriatcheva

Registry

Permanent Court of Arbitration

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GLOSSARY OF DEFINED TERMS

\$	United States dollar
1986 Plan	Barbados National Physical Development Plan of 1986 (exhibit C-29)
1995 Cummins Letter	letter dated 18 July 1995 from Mr. Mark Cummins, Chief Town Planner of Barbados, to Philip W. Moseley (exhibit C-27)
2001–2003 Monitoring Programme	Water quality monitoring programme carried out at the Sanctuary in 2001–2003
2003 Plan	Barbados National Physical Development Plan of 2003, in effect from 15 April 2008 (exhibit C-58)
2010 EEC Report	technical report by EEC dated April 2010 (exhibit C-73)
2015 Photograph	photograph of the mangrove trees at the Sanctuary taken by Mr. Thomas F. Ries in November 2015 (exhibit C-288)
Amended EMP	Amended Environmental Management Plan submitted by the Claimant in April 2000 (exhibit C-44)
Award on Jurisdiction	Award on Jurisdiction issued by the Tribunal on 13 June 2014
Barbados (or Respondent)	the Government of Barbados, the respondent in this matter
BIT	<i>Agreement between the Government of Canada and the Government of Barbados for the Reciprocal Promotion and Protection of Investments</i> , signed on 29 May 1996
C\$	Canadian dollar
CARICOMP	Caribbean Coastal Marine Productivity Program
Cattaneo Report	Antonia Cattaneo <i>et al.</i> , “A Limnological and Ichthyological Reconnaissance of Graeme Hall Swamp,” July 1987 (exhibit C-180)
Claimant (or Mr. Allard)	Mr. Peter A. Allard, the claimant in this matter
Claimant’s Costs Submission	the Claimant’s submission on costs 9 February 2016
Claimant’s Reply on Costs	the Claimant’s reply submission on costs 7 March 2016

Claimant’s Skeleton Argument	the Claimant’s Skeleton Argument 1 December 2015
Committee	Graeme Hall Stewardship Committee
Counter-Memorial	the Respondent’s Counter-Memorial 17 June 2013
CZMU	Coastal Zone Management Unit of the Ministry of the Environment of Barbados
EEC	Environmental Engineering Consultants
FET	fair and equitable treatment
FPS	full protection and security
First ARA Report	“Barbados Tourism Development Programme Subprogramme C, Part I: Graeme Hall Swamp Today,” a report produced by ARA Consulting Group Inc. in October 1997 (exhibit C-56)
First EMP	Environmental Management Plan submitted by the Claimant on 11 November 1998 (exhibit C-43)
GHNSI	Graeme Hall Nature Sanctuary, Inc., a Barbadian company
Graeme Hall Swamp	some 240 acres of wetlands on the south coast of Barbados
Hearing	hearing held in this matter from 8 to 17 December 2015
Hunte Supplemental Report	report by Professor Wayne Hunte dated 8 December 2015
Jurisdictional Objections	jurisdictional objections made by the Respondent in its submission of 24 May 2013
NAFTA	North American Free Trade Agreement
Mr. Allard (or Claimant)	Mr. Peter A. Allard, the claimant in this matter
Parker Paper	Christopher Parker, “Ecological Aspects of the Graeme Hall Swamp—Water Analysis of the Drainage Canal,” 1986 (exhibit C-183)
Parties	the Claimant and the Respondent
PCA	the Permanent Court of Arbitration
ppt	parts per thousand

Ramsar Convention	<i>Convention on Wetlands of International Importance especially as Waterfowl Habitat</i> , 2 February 1971, 996 UNTS 245
Ries Supplemental Report	report by Mr. Thomas F. Ries dated 1 December 2015
Rejoinder	Respondent's Rejoinder on the Merits 1 September 2015
Relevant Period	The period from the date of the Claimant's initial investment in Barbados in 1996 until the date of the closure of the Sanctuary as an ecotourism attraction in 2009
Reply	Claimant's Reply 27 April 2015
Respondent (or Barbados)	the Government of Barbados, the respondent in this matter
Respondent's Costs Submission	the Respondent's submission on costs 10 February 2016
Respondent's Reply on Costs	the Respondent's reply submission on costs 7 March 2016
Respondent's Skeleton Argument	the Respondent's Skeleton Argument 1 December 2015
Sanctuary	34.25 acres of land located within Graeme Hall Swamp where the Claimant operated a bird and nature reserve
Second ARA Report	"Barbados Tourism Development Programme Subprogramme C, Part II: Graeme Swamp's Future," a report produced by ARA Consulting Group Inc. in January 1998 (exhibit C-57)
Statement of Claim	the Claimant's Statement of Claim 18 December 2012
Sluice Gate	sluice gate located at the end of the canal connecting Graeme Hall Swamp with the ocean
UNCITRAL Rules	Arbitration Rules of the United Nations Commission on International Trade Law as adopted in 1976
Wallace Supplemental Report	report by Mr. Robert E. Wallace dated 1 December 2015
Zoning Changes	zoning changes to an area north of the Sanctuary provided for in the 2003 Plan and implemented in 2008

I. INTRODUCTION

1. The Claimant is Mr. Peter A. Allard, c/o Peterco Holding Ltd, 881 Helmcken Street, Vancouver V6Z 1B1, British Columbia, Canada (“**Mr. Allard**” or “**Claimant**”), a retired attorney and businessman with Canadian nationality, represented in this arbitration by Mr. Robert Wisner and Ms. Cara Zacks of McMillan LLP, Lawyers, Brookfield Place, Suite 4400, Bay Wellington Tower, 181 Bay Street, Toronto, Ontario, M5J 2T3, Canada.
2. The Respondent is the Government of Barbados, c/o Prime Minister and Minister of Finance, Government Headquarters, Bay Street, St. Michael, Barbados (“**Barbados**” or “**Respondent**”, and together with the Claimant, “**Parties**”), represented in this arbitration by Messrs. Robert Volterra, Graham Coop, Christophe Bondy, Ms. Jessica Pineda and Mr. Govert Coppens of Volterra Fietta, 1 Fitzroy Square, London W1T 5HE, United Kingdom.
3. The dispute between the Parties concerns Mr. Allard’s investment in the acquisition and development of an eco-tourism site in Barbados (“**Sanctuary**”).¹ The Claimant claims that Barbados has “failed to take reasonable and necessary environmental protection measures and, through its organs and agents, has directly contributed to the contamination of the Claimant’s eco-tourism site, thereby destroying the value of his investment.” According to the Claimant, Barbados’ “actions and omissions violate [its] international obligations to Canadian investors” under the *Agreement between the Government of Canada and the Government of Barbados for the Reciprocal Promotion and Protection of Investments*, signed on 29 May 1996 (“**BIT**”).²

II. PROCEDURAL HISTORY

A. COMMENCEMENT OF THE ARBITRATION AND CONSTITUTION OF THE TRIBUNAL

4. The Claimant commenced these proceedings by Notice of Arbitration dated 21 May 2010 pursuant to Article XIII(4) of the BIT and the Arbitration Rules of the United Nations Commission on International Trade Law as adopted in 1976 (“**UNCITRAL Rules**”).³
5. The Claimant appointed Professor Andrew Newcombe (Faculty of Law, University of Victoria, PO Box 1700, STN CSC, Victoria, BC, V8W 2Y2, Canada) as arbitrator on 24 November 2011. The

¹ Notice of Arbitration dated 21 May 2010, ¶ 14.

² Notice of Arbitration dated 21 May 2010, ¶ 2. The BIT entered into force on 17 January 1997. Exhibit C-1.

³ Notice of Arbitration dated 21 May 2010, ¶¶ 8, 10.

Respondent appointed Professor W. Michael Reisman (Yale Law School, 127 Wall Street, New Haven, CT 06511, U.S.A) as arbitrator on 5 January 2012. The co-arbitrators appointed Dr. Gavan Griffith QC (Essex Court Chambers, 24 Lincoln’s Inn Fields, London WC2A 3ED, United Kingdom) as presiding arbitrator on 14 March 2012.

6. On 22 May 2012, the Tribunal and the Parties signed Terms of Appointment, which, *inter alia*, fixed The Hague, the Netherlands as the place of arbitration and designated the Permanent Court of Arbitration (“PCA”) as registry for the proceedings.
7. Following a procedural hearing held in New York on 7 June 2012 and the circulation of a draft for the Parties’ comments, the Tribunal issued its Procedural Order No. 1 dated 26 June 2012, *inter alia* establishing the procedural timetable.
8. On 9 July 2012, following an exchange of written submissions, the Tribunal issued a Ruling on Confidentiality.

B. INITIAL PLEADINGS AND BIFURCATION

9. On 18 December 2012, the Claimant filed his Statement of Claim (“**Statement of Claim**”).
10. On 24 May 2013, the Respondent filed preliminary objections to jurisdiction (“**Jurisdictional Objections**”) and requested the bifurcation of the proceedings between a jurisdictional and a merits phase.
11. On 17 June 2013, the Respondent filed its Counter-Memorial on the Merits (“**Counter-Memorial**”).
12. On 20 June 2013, following several exchanges of written submissions by the Parties, the Tribunal granted the Respondent’s request for bifurcation.

C. PRELIMINARY PHASE ON THE JURISDICTIONAL OBJECTIONS

13. The Parties exchanged two rounds of pleadings on the Jurisdictional Objections from September 2013 to February 2014.⁴

⁴ Claimant’s Memorial dated 12 September 2013; Respondent’s Counter-Memorial dated 7 November 2013; Claimant’s Reply dated 3 January 2014; Respondent’s Rejoinder on Jurisdiction dated 3 February 2014.

14. Between 20 December 2013 and 13 January 2014, the Tribunal made orders in respect of the production of documents by the Claimant and the inspection of those documents by the Respondent and its forensic experts. The Parties' forensic experts filed their respective reports on 31 January 2014 and a joint report on 6 February 2014.
15. A hearing on the Jurisdictional Objections was held in New York from 18 to 21 February 2014. The Parties were represented as follows:

Claimant

Robert Wisner
Jeffrey Levine
McMillan LLP

Tariq Khan
Khan Chambers

Respondent

Robert Volterra
Graham Coop
Bernhard Maier
Jessica Pineda
Volterra Fietta

Adriel Brathwaite QC
*Attorney General and Minister of Home
Affairs, Government of Barbados*

Corlita Babb-Schaefer
*Principal Crown Counsel, Attorney
General's Chambers, Barbados*

16. The Tribunal issued its Award on Jurisdiction on 13 June 2014 (“**Award on Jurisdiction**”), in which it:
- (i) dismissed the Respondent's objections to its jurisdiction *ratione materiae* and *ratione personae*, finding that Mr. Allard owns and controls assets in accordance with Barbadian law and that these assets constitute investments for the purposes of Article I(f) of the BIT;⁵
 - (ii) confirmed its jurisdiction *ratione temporis* in respect of the Claimant's claims relating to Barbados' National Physical Development Plan adopted on 15 April 2008; and
 - (iii) reserved for determination in the merits phase the Respondent's objection to its jurisdiction *ratione temporis* in respect of the Claimant's claims relating to the “‘sluice gate’ issue.”⁶

⁵ ¶ 95.

⁶ ¶¶ 112-113. The reserved objection is addressed in Section V.C below.

D. MERITS PHASE

17. Between July 2014 and February 2015, the Parties agreed to suspend the establishment of a procedural calendar for the merits phase of the proceedings.
18. On 27 February 2015, after consulting the Parties, the Tribunal issued its Procedural Order No. 2, establishing the calendar for the merits phase of the proceedings, including a two-week hearing to be held in December 2015 (“**Hearing**”).
19. On 27 March 2015, the Tribunal issued its Procedural Order No. 3, deciding on contested document production requests made by the Claimant.
20. On 27 April 2015, the Claimant filed his Reply (“**Reply**”).
21. On 30 June 2015, the Tribunal issued its Procedural Order No. 4, deciding on contested document production requests made by the Respondent.
22. The Respondent filed its Rejoinder on the Merits (“**Rejoinder**”) on 1 September 2015.
23. On 1 October 2015, the Parties notified the Tribunal of the witnesses they wished to call for cross-examination at the Hearing.
24. On 1 December 2015, the Parties filed their respective skeleton arguments (“**Claimant’s Skeleton Argument**” and “**Respondent’s Skeleton Argument**”).
25. On the same date, the Claimant submitted, without leave, two supplementary reports prepared by his environmental experts, Mr. Thomas F. Ries and Mr. Robert E. Wallace (“**Ries Supplemental Report**” and “**Wallace Supplemental Report**”).
26. By letter dated 4 December 2015, the Respondent requested that the Tribunal: (i) exclude from the record the Claimant’s Skeleton Argument and the Ries Supplemental Report; and (ii) grant the Respondent an opportunity to respond to the Wallace Supplemental Report. The Tribunal informed the Parties on 5 December that the determination of the Respondent’s requests would be held over to the Hearing, but invited the Respondent to prepare its response to the Wallace Supplemental Report in the meantime.
27. The Hearing was held at the New York International Arbitration Center from 8 to 17 December 2015. The following persons were present:

For the Tribunal

Dr. Gavan Griffith QC (Presiding Arbitrator)
Professor Andrew Newcombe
Professor W. Michael Reisman

For the Claimant

Robert Wisner
Cara Zacks
McMillan LLP

Richard Pryor
*Environmental Engineering Consultants
Inc.*

Witnesses

Peter A. Allard, the Claimant
Ryan Chenery (by video link)
Stuart Heaslet

Experts

Chris Milburn
FTI Consulting Inc.

Thomas F. Ries
Scheda Ecological Associates Inc.

Robert E. Wallace
*Environmental Engineering Consultants
Inc.*

For the Respondent

Robert Volterra
Graham Coop
Christophe Bondy
Bernhard Maier
Jessica Pineda
Govert Coppens
Volterra Fietta

Summer Chandler
*Senior Crown Counsel, Government of
Barbados*

Jennifer Edwards QC
Solicitor general, Government of Barbados

Vicky Wall
Haberman Ilett LLP

Witnesses

Mark Cummins
Steve Devonish
Lorna Inniss (by video link)
Karl Watson

Experts

Philip Haberman (by video link)
Haberman Ilett LLP

Professor Wayne Hunte

For the PCA

Evgeniya Goriatcheva

Court Reporter

David Kasdan

28. On 8 December 2015, the Respondent submitted a report by Professor Wayne Hunte responding to the Wallace Supplemental Report (“**Hunte Supplemental Report**”).

29. In the course of the Hearing and in absence of any objection from the Claimant, the Tribunal admitted the Hunte Supplemental Report in the record of the arbitration.⁷ The Tribunal also ruled to exclude the Ries Supplemental Report from the record, but admitted one contemporaneous photograph of mangrove trees at the Sanctuary that had been attached to the Report (“**2015 Photograph**”).⁸
30. The Tribunal did not make a determination on the Respondent’s request for the exclusion from the record of the Claimant’s Skeleton Argument at the Hearing and, accordingly, addresses this request here. The Respondent submitted that the document filed by the Claimant exceeds the normal scope of a skeleton argument, as it makes certain new arguments in response to the Respondent’s Rejoinder.⁹ Overall, the Respondent identified only a few paragraphs that contained such allegedly new arguments¹⁰ and the content of these paragraphs was reiterated in the course of the Claimant’s opening and closing statements at the Hearing, without any objection from the Respondent.¹¹ In this context, the Tribunal does not see what prejudice the Respondent would suffer by the admission of the Claimant’s Skeleton Argument. Accordingly, the Respondent’s request for the exclusion from the record of the Claimant’s Skeleton Argument is rejected.
31. On 9 and 10 February 2016 respectively, the Claimant and the Respondent filed submissions on costs (“**Claimant’s Costs Submission**” and “**Respondent’s Costs Submission**”).
32. On 7 March 2016, the Parties filed reply submissions on costs (“**Claimant’s Reply on Costs**” and “Respondent’s **Reply on Costs**”).

III. FACTUAL BACKGROUND

33. In 1994, Mr. Allard decided to acquire and develop land in Barbados for an eco-tourism attraction.¹² To this end, in October 1996, he incorporated the Barbadian company Graeme Hall Bird Sanctuary Inc. (“**GHNSI**”), which in three separate land conveyances dated 1996, 1998 and 1999

⁷ Hearing Tr., 15 December 2015, 1118:6-9.

⁸ Hearing Tr., 14 December 2015, 1027:4-7; Hearing Tr., 15 December 2015, 1062:10-13. Exhibit C-288, Photograph of the mangrove trees taken by Mr. Thomas F. Ries, November 2015.

⁹ Respondent’s letter dated 4 December 2015, pp. 2-3; Hearing Tr., 8 December 2015, 20:6-18; 21:22-22:2.

¹⁰ Hearing Tr., 8 December 2015, 20:2-5.

¹¹ Hearing Tr., 8 December 2015, 42:16-44:25; 45:17-47:1 (Claimant’s opening statement); Hearing Tr., 17 December 2015, 1470:21-1471:3; 1480:13-1481:3 (Claimant’s closing statement).

¹² Statement of Claim, ¶ 10; Witness statement by Mr. Peter A. Allard dated 7 December 2012 (“First Allard Statement”), ¶ 7.

acquired the Sanctuary, comprising in total 34.25 acres of land located in the western part of some 240 acres of wetlands on the south coast of Barbados (“**Graeme Hall Swamp**”).¹³

34. The Sanctuary includes a forest of red and white mangroves, and a lake and ponds connected to the ocean by a canal.¹⁴ A long-established sluice gate located at the end of the canal (“**Sluice Gate**”) is claimed as having the purpose of controlling the exchange of water between the wetlands and the ocean;¹⁵ its exact function at different points in time is in dispute.
35. Before acquiring the Sanctuary, in 1995, Mr. Allard communicated an initial outline of the envisaged development to various governmental authorities in Barbados.¹⁶ By letter dated 18 July 1995, Mr. Mark Cummins, the Chief Town Planner of Barbados, informed Mr. Allard that the Barbados National Physical Development Plan of 1986 (“**1986 Plan**”)¹⁷ designated Graeme Hall Swamp as “an area for major recreational activity and/or open space” and that, to obtain the required planning permission, a formal application would be required together with a “comprehensive Environmental Impact Assessment highlighting the assets of the development, areas of concern, the issues to be addressed and an environmental management plan for the wetland” (“**1995 Cummins Letter**”).¹⁸
36. Between 1996 and 1998, the Government of Barbados commissioned the ARA Consulting Group to produce two reports setting out the environmental characteristics of Graeme Hall Swamp and recommendations on its use in the “country’s nature-based tourist programme” (“**First ARA Report**” and “**Second ARA Report**”).¹⁹

¹³ Statement of Claim, ¶¶ 10-12; Exhibit C-17, Property conveyance between Property Consultants Ltd. and GHNSI, 20 December 1996; Exhibit C-19, Property conveyance between the estate of William Norman Alleyne and GHNSI, 7 October 1998; Exhibit C-18, Property conveyance between Southdown Enterprises Inc and GHNSI, 31 August 1999.

¹⁴ Statement of Claim, ¶ 13; Witness Statement by Dr. Karl Watson dated 17 June 2013 (“Watson Statement”), ¶ 10.

¹⁵ Statement of Claim, ¶ 37.

¹⁶ Statement of Claim, ¶ 22; Exhibit C-21, Graeme Hall Lake – An Eco-Tourist Development Proposal by Ruby Sea Investments Ltd., 18 February 1995; Exhibits C-24 to C-26, Letters from Philip W. Moseley to the Minister of Agriculture and Road Development, the Minister of Tourism, Internal Transport and the Environment, and the Chief Town Planner, 6 March 1995.

¹⁷ Exhibit C-29.

¹⁸ Exhibit C-27.

¹⁹ Exhibit C-56, Barbados Tourism Development Programme Subprogramme C, Part I: Graeme Hall Swamp Today prepared by ARA Consulting Group Inc., October 1997, ¶ 1.4; Exhibit C-57, Barbados Tourism Development Programme Subprogramme C, Part II: Graeme Swamp’s Future prepared by ARA Consulting Group Inc., January 1998.

37. On 27 March 1998, the Chief Town Planner granted Mr. Allard “Permission to develop land subject to conditions.”²⁰ One of these conditions was “[t]he submission to and approval by the Chief Town Planner of an Environmental Management Report which shall address . . . (iii) [the] comprehensive drainage plan of the swamp including the sluice gate.”²¹
38. Mr. Allard submitted an initial Environmental Management Plan on 11 November 1998 (“**First EMP**”).²² By letter dated 12 April 1998, the Chief Town Planner stated that the report was unsatisfactory and requested a “resubmission.”²³
39. Mr. Allard submitted an Amended Environmental Management Plan in April 2000 (“**Amended EMP**”).²⁴
40. On 27 November 2000, the Chief Town Planner wrote that he was “prepared to advise the Ministry of Finance that the developer has either discharged all relevant conditions or put adequate measures in place to address the same conditions” and that he would “recommend to the Ministry of Finance that with respect to building works, and related ancillary structures such as the boardwalk, pier and observation huts concessions may be granted.”²⁵
41. Around the same time, Mr. Allard undertook construction and improvement works on the Sanctuary site, including building migratory bird ponds adjoining the main lake, an integrated network of boardwalks, observation decks, aviaries, and the “foundation of a visitor’s centre, a gift shop, public restrooms, a commercial animal food preparation structure, offices and other supporting elements.”²⁶
42. The Sanctuary opened to the public in the spring of 2004.²⁷
43. In 2005, a failure at the South Coast Sewage Treatment Plant, operated by the Barbados Water Authority, resulted in the emergency discharge of raw sewage into Graeme Hall Swamp.²⁸

²⁰ Exhibit C-37, Letter from the Town &Country Development Planning Office, 27 March 1998.

²¹ Exhibit C-37, Letter from the Town &Country Development Planning Office, 27 March 1998.

²² Exhibit C-43. *See also* Reply, ¶ 23; Rejoinder, ¶ 95.

²³ Exhibit R-36.

²⁴ Exhibit C-44. *See also* Statement of Claim, ¶ 41; Hearing Tr., 8 December 2015, 92:7-8 (Respondent’s opening statement).

²⁵ Exhibit C-40.

²⁶ Statement of Claim, ¶¶ 60-61. *See also* Exhibit C-61, Photographs of the Sanctuary’s grounds.

²⁷ Statement of Claim, ¶ 63.

²⁸ Statement of Claim, ¶¶ 41, 72.

44. In June 2007, Mr. Allard began trying to sell the Sanctuary.²⁹
45. On 15 April 2008, an amended Barbados National Physical Development Plan, first proposed in 2003, came into effect (“**2003 Plan**”).³⁰ The 2003 Plan reclassified a zone located to the north of the Sanctuary that had been allocated to recreational and agricultural uses under the 1986 Plan into two zones: a “predominantly residential” zone, closest to the Sanctuary, and an “urban corridor” (the “**Zoning Changes**”).³¹
46. On 29 October 2008, Mr. Allard announced the closure of the Sanctuary,³² which became effective between December and March 2009.³³ Since that closure, the visitors centre’s operation has been confined to its use as a café.³⁴

IV. THE PARTIES’ REQUESTS FOR RELIEF

47. In his Statement of Claim, the Claimant requested that the Tribunal render an award:
- (a) declaring that it has jurisdiction to hear Mr. Allard’s claim under the [BIT];
 - (b) declaring that Barbados breached its obligations under Articles II(2) and VIII of the [BIT];
 - (c) ordering Barbados to pay monetary compensation to Mr. Allard in the amount of C\$34,630,700 million plus compound interest thereon from November 30, 2012; and;
 - (d) granting Mr. Allard his costs of this arbitration and costs of legal representation and assistance in an amount to be determined in a final award.³⁵
48. In his Reply and Skeleton Argument, the Claimant amends his claim for monetary compensation to C\$29,026,200.³⁶
49. In defence, the Respondent requests that the Tribunal:
- (i) Decline jurisdiction over all claims in relation to the sluice gate on the grounds that the Claimant was aware or should have been aware of the sluice gate issue and any alleged resulting damage prior to 21 May 2007 and that the Tribunal’s jurisdiction is therefore precluded under Article XIII(3)(d) of the BIT;

²⁹ Exhibit C-77, Sales advertisement, 5 June 2007.

³⁰ Exhibit C-58.

³¹ Statement of Claim, ¶ 81.

³² Exhibit C-78, GHNSI Press release, 29 October 2008.

³³ Exhibit C-79, GHNSI Press release, 20 February 2009.

³⁴ Hearing Tr., 8 December 2015, 75:10-13 (Claimant’s opening statement); Rejoinder, ¶ 116.

³⁵ ¶ 164.

³⁶ Reply, p. 35; Claimant’s Skeleton Argument, ¶ 60.

- (ii) Dismiss the Claimant's remaining claims on the merits in their entirety;
- (iii) Declare that the Claimant is not entitled to any damages; and
- (iv) Order the Claimant to pay all of the Respondent's costs in connection with these proceedings, including the Tribunal's fees and expenses and all legal fees and expenses incurred by the Respondent (including, but not limited to, the fees and expenses of legal counsel, experts and consultants).³⁷

V. THE PARTIES' ARGUMENTS AND THE TRIBUNAL'S ANALYSIS

50. In summary, the Claimant's case is that the actions and inactions of Barbados concerning the mismanagement of the Sluice Gate and other issues, caused and/or failed to mitigate a significant degradation of the environment and the "tourist experience" at the Sanctuary, to an extent obliging the Claimant to close the Sanctuary, and thereby depriving him of the entire benefit of his investment in Barbados.
51. The actions and inactions of Barbados are claimed to constitute breaches of its obligations under the BIT:
- (i) to accord "fair and equitable treatment in accordance with principles of International Law" ("**FET**") (Article II(2)(a));
 - (ii) to accord "full protection and security" ("**FPS**") (Article II(2)(b)); and
 - (iii) not to expropriate, except "for a public purpose under due process of law, in a non-discriminatory manner and against prompt, adequate and effective compensation" (Article VIII).³⁸
52. The Respondent's position is that:
- (i) The Claimant closed the Sanctuary for business reasons unrelated to the environmental conditions at the site.
 - (ii) During the relevant period, the environmental conditions at the Sanctuary were not degraded, but either stayed the same or improved.
 - (iii) Alternatively, any degradation as did occur, arose from external causes and the Claimant's own actions and inactions.

³⁷ Respondent's Skeleton Argument, p. 12. *See also* Rejoinder, ¶ 421; Counter-Memorial, ¶¶ 162-165.

³⁸ Statement of Claim, ¶¶ 93, 104-140; Reply, ¶¶ 91-112.

- (iv) In any event, Barbados took appropriate steps for the environmental protection of the Sanctuary.
 - (v) Accordingly, Barbados has complied with all of its obligations under the BIT.
 - (vi) Moreover, the Tribunal has no jurisdiction over the Claimant's claims and, in particular, as formulated in the Respondent's objection held over from the Jurisdictional Objections phase,³⁹ over the Claimant's claims relating to the Sluice Gate.
53. Hence, underlying the claims is a fundamental factual disagreement as to whether the Claimant has suffered loss or damage as a result of any actions or inactions of Barbados.
54. Accordingly, the Tribunal first addresses these factual issues in **Section A** below, before turning to the alleged breaches of the BIT in **Section B** and the Respondent's jurisdictional objections in **Section C**.

A. FACTUAL ISSUES – WHETHER THE CLAIMANT SUFFERED LOSS OR DAMAGE AS A RESULT OF ANY ACTIONS OR INACTIONS OF BARBADOS

1. The Claimant's position

55. The Claimant asserts that, at the time of his investment, the Sanctuary was a “natural wonder” and “biodiversity treasure” with the “potential to attract eco-tourism if it was highlighted and showcased to tourists and visitors.”⁴⁰ Although the Claimant acknowledges the prior existence of certain discrete environmental issues, such as overfishing by trespassers, neglect and an overgrowth of sour grass, he contends that GHNSI addressed these issues promptly after its purchase of the Sanctuary.⁴¹
56. It is claimed that after acquisition the Sanctuary suffered significant environmental degradation that progressively transformed it into “little more than a mosquito-infested swamp”⁴² by the time of closure in 2009. The Claimant invokes the circumstances of declines in water salinity, water quality and biodiversity,⁴³ and also complains of “occasional bad odours” and “pools of stagnant water that attract large populations of mosquitoes.”⁴⁴ Relying on the observations of Mr. Ryan Chenery, a

³⁹ See paragraph 16 above.

⁴⁰ Statement of Claim, ¶¶ 3, 13; Reply, ¶ 12.

⁴¹ Reply, ¶¶ 14-15.

⁴² Statement of Claim, ¶¶ 3, 77.

⁴³ Statement of Claim, ¶¶ 67-70.

⁴⁴ Statement of Claim, ¶ 76.

former employee of the Sanctuary, and the conclusions of his environmental experts, Environmental Engineering Consultants (“EEC”), the Claimant asserts that there was:

- (i) damage to the mangrove trees;
- (ii) a decline in the number of fish species, from somewhere in the range of 18 to 42 species to 11 species;
- (iii) an increase in the number of fish kills (*i.e.*, incidents of many fish dying at the same time);
- (iv) a steady decline in bird population and bird species, as concerns the latter from 45 observed species in 2005 to 35 in 2007 and 30 in 2008; and
- (v) a marked decrease in the number of crabs.⁴⁵

57. The Claimant alleges three causes for this degradation of the environment: the mismanagement of the Sluice Gate, the 2005 sewage spill and the Zoning Changes.

58. *The mismanagement of the Sluice Gate.* The claim is that “most of the damage” stems from the improper operation by Barbados of the Sluice Gate,⁴⁶ which was intended to “allow for a proper tidal exchange between the seawater and the water in the Sanctuary’s swamp,” but remained closed and non-operative due to lack of maintenance.⁴⁷ As a result, the wetlands became cut off from the sea and were gradually transformed from a brackish (mixed salt and fresh water) into a freshwater system.⁴⁸ Salinity measured at 19 parts per thousand (“ppt”) in 1987, declined to 8.4 ppt in 2002–2003 and to 1.9 ppt in 2010.⁴⁹ This reduction, together with a decrease in tidal effects, was detrimental to the mangrove trees and the many species that rely on the typically brackish nature of a mangrove ecosystem.⁵⁰ In addition, the inoperability of the Sluice Gate prevented pollutants from extraneous sources from being flushed into the sea and increased the risk of flooding.⁵¹ In contrast, on the very few occasions (if more than one) when sea water flowed freely into Graeme Hall Swamp, the positive

⁴⁵ Reply, ¶ 62, referring to Witness Statement by Mr. Ryan Chenery dated 25 April 2015 (“Chenery Statement”), ¶¶ 26-36; Hearing Tr., 17 December 2015, 1510:23-25, 1660:5-10 (Claimant’s closing statement). *See also* Statement of Claim, ¶ 76.

⁴⁶ Statement of Claim, ¶ 4; Reply, ¶ 2.

⁴⁷ Reply, ¶ 41.

⁴⁸ Reply, ¶ 55; Expert Report by EEC dated 12 December 2012 (“First EEC Report”), ¶ 7.

⁴⁹ Reply, ¶ 52, referring to Expert Report by EEC dated 22 April 2015 (“Second EEC Report”), p. 6. *See also* First EEC Report, ¶ 43, referring to Exhibit C-73, 2010 EEC Report, pp. 55-56.

⁵⁰ First EEC Report, ¶¶ 13, 20-21, 42-46; Second EEC Report, pp. 12-14; Reply, ¶ 64.

⁵¹ Statement of Claim, ¶ 38, referring to Witness Statement of Mr. Stuart Heaslet dated 13 December 2012 (“First Heaslet Statement”), ¶ 10; First EEC Report. Reply, ¶ 46.

impact on the water, which turned from “dark”, “stagnant” and “opaque” into “completely crystal clear”, and on several species of fauna, was readily apparent.⁵²

59. *Sewage spill.* As a single event in 2005, raw sewage contaminated the Sanctuary, curtailing all environmental tours and educational operations.⁵³ The effect of this pollution was exacerbated by the inoperability of the Sluice Gate.⁵⁴
60. *Zoning Changes.* The environmental degradation of the Sanctuary was “compounded” by the reclassification of lands adjacent to the Sanctuary under the 2003 Plan.⁵⁵ The implementation of the Zoning Changes is claimed as something that would increase the run-off of contaminants into the Sanctuary and diminish the quality of the visitor experience at the Sanctuary by reducing the “tranquillity” of the site.⁵⁶ The Claimant notes that the Second ARA Report confirms the critical importance of having a “buffer zone” for the environmental health of Graeme Hall Swamp.⁵⁷
61. The Claimant rejects the alternative explanations for the reduction in water salinity, water quality and biodiversity at the Sanctuary proposed by the Respondent’s environmental expert, Professor Wayne Hunte.⁵⁸ *Inter alia*, the Claimant asserts that Professor Hunte’s opinion that the Sluice Gate was not an important mechanism for exchange between the sea and the wetlands due to subsurface exchange, should be disregarded as being inconsistent with:
- (i) the position taken by Barbados’ own consultants outside of this arbitration;
 - (ii) the fact that only freshwater species live near the bottom of the Sanctuary lake;
 - (iii) geologic cross-sections showing that there is a freshwater lens immediately underneath the Sanctuary; and
 - (iv) the observed decline in salinity at the Sanctuary.⁵⁹

⁵² Reply, ¶¶ 42-45, referring to Chenery Statement, ¶¶ 13, 17.

⁵³ Statement of Claim, ¶¶ 72-73.

⁵⁴ Statement of Claim, ¶ 73; First EEC Report, ¶ 9.

⁵⁵ Statement of Claim, ¶ 81. *See also* Statement of Claim, ¶ 5; Reply, ¶ 74.

⁵⁶ Statement of Claim, ¶ 84-85; Reply, ¶ 89; First EEC Report, ¶ 12.

⁵⁷ Statement of Claimant, ¶ 53, referring to Exhibit C-57, Second ARA Report, p. 11-1.

⁵⁸ Reply, ¶¶ 52-59, 65-69.

⁵⁹ Reply, ¶¶ 56-57, referring to Exhibit C-184, Excerpt from Second ARA Report.

2. The Respondent's position

62. The Respondent disputes that the Sanctuary suffered any material environmental degradation between 1994, when the Claimant “first launched his plans,” and 2009, when he closed the Sanctuary.⁶⁰ Alternatively, the Respondent submits that such degradation as did occur, did not arise from the Respondent's actions or inactions.⁶¹ In particular, Mr. Allard closed the Sanctuary for business rather than environmental reasons, having come to realize that his project was not economically viable.⁶²
63. First, the Respondent asserts that, in 1994, the ecology of the site already reflected a series of “pre-existing physical constraints.”⁶³ In its original state centuries ago, Graeme Hall Swamp was “part of a much wider mangrove system which communicated directly with the sea” through an estuary,⁶⁴ but from the early 1700s the wetlands were increasingly separated from the sea through human intervention, in particular following the construction of a coastal road leaving only a stream linking the swamp with the sea.⁶⁵ In the 1930s, a gun club built the Sluice Gate across the stream, not “as a conduit for seawater to enter the wetlands,” but to create and control water levels in “freshwater shooting ponds.”⁶⁶ Further, in 1972 and 1973, the western section of Graeme Hall Swamp (where the Sanctuary is located) was dredged for an aborted residential development project, creating a lake and “exacerb[at]ing the longstanding drainage issues by effectively creating an additional shelf between [the lake] and the sea.”⁶⁷ Finally, in 1984, a tropical storm resulted in a variable build-up of sand extending up to 130 metres as a beach between the Sluice Gate and the sea; this limited the interchange of water between the swamp and the sea.⁶⁸

⁶⁰ Rejoinder, ¶ 40.

⁶¹ Rejoinder, ¶ 9.

⁶² Hearing Tr., 8 December 2015, 87:20-91:3 (Respondent's opening statement).

⁶³ Rejoinder, ¶ 82; *see also* ¶ 39.

⁶⁴ Rejoinder, ¶ 41, referring to Exhibit C-43, First EMP, p. 1.

⁶⁵ Rejoinder, ¶¶ 41, 52, referring to Exhibit C-43, First EMP, p. 1; Exhibit R-52, Graeme Hall Bird Sanctuary Biologist Report by Dr. Ingrid Sylvester, September 2000, p. 21.

⁶⁶ Counter-Memorial, ¶ 10, *quoting* Expert Report by Prof. Wayne Hunte dated 26 August 2015 (“Second Hunte Report”), p. 3; Rejoinder, ¶ 43, referring to Exhibit C-56, First ARA Report, Part 1, p. 3.

⁶⁷ Rejoinder, ¶ 48, referring to Exhibit C-56, First ARA Report, Part 1, p. 5-1; Exhibit C-57, Second ARA Report, Part 2, p. 7-1; Exhibit R-52, Graeme Hall Bird Sanctuary Biologist Report by Dr. Ingrid Sylvester, September 2000, p. 21.

⁶⁸ Rejoinder, ¶¶ 50-51, 57, referring to Witness Statement by Dr. Lorna Inniss dated 27 August 2015 (“Inniss Statement”), ¶¶ 21-22; Exhibit C-43, First EMP, p. 18; Exhibit C-72, Draft Master Plan for the Graeme Hall Ecosystem, September 2007, p. 5; Second Hunte Report, p. 4.

64. Hence, it was these human and natural events that caused the transformation of the Sanctuary from a “typical mangrove ecosystem with an estuary connecting the inland water to the sea” to a “somewhat fresher ecosystem.”⁶⁹ For this reason, it is inappropriate to compare the flora and fauna of the Sanctuary with that of typical mangrove ecosystems.⁷⁰
65. In addition, the Sanctuary’s situation at the bottom of a catchment area of approximately 1156 acres gave rise to “significant drainage issues,” which hampered pollution discharge from adjacent agricultural and residential activity.⁷¹
66. Thus, the records from its early days recognize the imperfect environmental health position of the Sanctuary. The First EMP stated that “[c]omparative data from other mangrove eco-systems within the Caribbean Basin which have retained their open links with the sea, demonstrates that Graeme Hall [Swamp] is fish species poor.”⁷² The Amended EMP and the First ARA Report each documented fish kills, while the First EMP also referred to a decline in bird diversity.⁷³
67. According to the Respondent, this much was admitted by the Claimant. In a letter dated 26 February 1996, a representative stated that the wetlands had been “rendered ecologically unsound,”⁷⁴ and in a later letter dated 28 November 1996, the Claimant himself stated that Graeme Hall Swamp was “an abused and degraded ecosystem.”⁷⁵
68. Second, the Respondent asserts that between 1994 and 2009 there was no actual degradation in the environmental conditions at the Sanctuary and that, in fact, they were substantially stable or even improved.
69. *Water salinity.* Salinity measurements used by the Claimant are misleading as they were taken in a very short monitoring period (in February 2010). Data collected by the Caribbean Coastal Marine

⁶⁹ Second Hunte Report, pp. 2, 4-5. *See also* Rejoinder, ¶¶ 42, 52, 77, referring to Exhibit C-73, 2010 EEC Report; Exhibit C-57, Second ARA Report, Part 2, p. 7-1; Exhibit R-71, Minutes of Graeme Hall Stewardship Committee meeting, of 17 October 2005, 4 November 2005, pp. 2-3, 5.

⁷⁰ Expert Report by Prof. Wayne Hunte dated 17 June 2013 (“First Hunte Report”), pp. 9, 27; Second Hunte Report, p. 3; Rejoinder, ¶ 44, referring to Exhibit C-43, First EMP, p. 1.

⁷¹ Rejoinder, ¶¶ 40, 46, 72-74. *See also* Counter-Memorial, ¶ 42; First Hunte Report, p. 6.

⁷² Rejoinder, ¶ 79, referring to Exhibit C-43, First EMP, p. 1.

⁷³ Rejoinder, ¶¶ 83, 88, referring to Exhibit C-43, First EMP, pp. 2, 5; Exhibit C-44, Amended EMP, p. 6; Exhibit C-56, First ARA Report, Part 1, pp. 4-6.

⁷⁴ Rejoinder, ¶ 81, referring to Exhibit C-32, Letter from Joseph Ward to the Minister of Finance of Barbados, 26 February 1996.

⁷⁵ Rejoinder, ¶ 81, referring to Exhibit C-36, Letter from Peter A. Allard to the Prime Minister of Barbados, 28 November 1996. *See also* Exhibit R-53, Graeme Hall Nature Sanctuary Biologist Report by Dr. Ingrid Sylvester, April 2001, p. 4.

Productivity Program (“CARICOMP”) confirms that salinity was low in February 2010, but also shows that “there continues to be inter-annual variation in salinity values” and that “there has not been a uni-directional transition to fresh water” over the period of the Claimant’s investment.⁷⁶ Professor Hunte’s opinion is that the low salinity figure of February 2010 was due to the pumping of freshwater into the swamp by the Sanctuary, in accordance with its policy to pump freshwater from the springs into the lake to maintain water levels during periods of drought.⁷⁷

70. *Water quality.* Comparing the full available data set for 2002-2003 to 2010, Professor Hunte concludes that water quality at the Sanctuary has improved over that period with respect to all parameters.⁷⁸ Professor Hunte further states that even if the 2005 sewage spill had a negative effect on the Sanctuary, the effect was not lasting.⁷⁹ Moreover, the Respondent asserts that the Claimant himself regularly used pesticides at the Sanctuary.⁸⁰
71. *Mangroves.* Professor Hunte invokes an expert in mangroves hired by EEC in 2010, stating that “[t]he Sanctuary mangroves were verdant and healthy.”⁸¹
72. *Crabs, birds and fish.* Professor Hunte states that there is no quantitative evidence of the decrease in the number of crabs at the Sanctuary and suggests that if there was a decrease, it would most likely be due to predation by mongoose and wading birds such as the glossy ibis.⁸² Professor Hunte also suggests that any perceived reduction of the fish and bird population at the Sanctuary may be due to methodological flaws in Mr. Chenery’s censuses. Thus, the reduction in the numbers of birds observed by Mr. Chenery from one year to the next may be the result of the corresponding reduction in the number of bird census walks.⁸³ The difference between the numbers of fish counted in 1987 and 2009 may be explained by the fact that the 1987 count was conducted by four highly trained scientists using more varied methods than those employed by Mr. Chenery in 2009.⁸⁴ Professor Hunte also indicates that fish kills occur from time to time as “natural events”, because periods of heavy

⁷⁶ Second Hunte Report, p. 2.

⁷⁷ First Hunte Report, pp. 4-5, referring to Exhibit C-73, 2010 EEC Report, p. 8; Second Hunte Report, p. 5.

⁷⁸ First Hunte Report, pp. 3, 7, 11-12; Second Hunte Report, pp. 8-10.

⁷⁹ First Hunte Report, p. 7.

⁸⁰ Rejoinder, ¶ 117, referring to Witness Statement by Ms. Donna Roach dated 3 September 2013, p. 1.

⁸¹ Second Hunte Report, p. 31, referring to Exhibit C-217, Attachment 11 to 2010 EEC Report..

⁸² Second Hunte Report, pp. 22-23, 31-32.

⁸³ Second Hunte Report, p. 15.

⁸⁴ Second Hunte Report, pp. 17, 22.

rainfall can cause “low oxygen water at depth to be redistributed throughout the water column, resulting in fish mortality through oxygen deprivation.”⁸⁵

73. In summary, the Respondent asserts that, “[i]n the absence of any adequate baseline data or systematic ongoing monitoring data,” the claim that Mr. Allard closed the Sanctuary due to the environmental degradation of the site and not other reasons is “manifestly ungrounded in fact”⁸⁶ and is to be rejected.
74. Third, the Respondent disputes the importance of the Sluice Gate for the exchange of water between Graeme Hall Swamp and the sea.⁸⁷ According to Professor Hunte, since the beach accretion of 1984, seawater at high tide reached the Sluice Gate canal only exceptionally, during extreme weather conditions.⁸⁸
75. Moreover, Professor Hunte’s opinion is that the geology of Barbados ensures that “nearly all exchange between inland water and seawater occurs subsurface.”⁸⁹ This exchange is evidenced at the Sanctuary by:
- (i) the fact that the lake maintained brackish water conditions even when seawater could not reach the Sanctuary overland due to the beach accretion; and
 - (ii) water testing results showing that the salinity of sub-surface water at the Sanctuary exceeds that of the lake.⁹⁰
76. Accordingly, the Sluice Gate has had little or no impact on salinity during the Claimant’s ownership of the Sanctuary. In any event, the Claimant is incorrect to claim that since his purchase in 1996 the Sluice Gate has remained completely closed: in fact, the Respondent during this period has “maintained the opening and closing of the canal, either by the Sluice Gate or by alternate means.”⁹¹
77. Fourth, the Respondent contends that the Zoning Changes had a positive impact on environmental conditions at the Sanctuary. The reallocation of the broader area around Graeme Hall Swamp from an open and major recreational space to a predominantly residential space has no “practical

⁸⁵ First Hunte Report, pp. 6, 10.

⁸⁶ Rejoinder, ¶ 107.

⁸⁷ Counter-Memorial, ¶ 16.

⁸⁸ Rejoinder, ¶ 56, referring to Second Hunte Report, pp. ii, 4, 13, 24, 28.

⁸⁹ First Hunte Report, pp. 2, 4.

⁹⁰ Second Hunte Report, pp. ii-iii, 3-4.

⁹¹ Rejoinder, ¶¶ 66, 319.

significance.”⁹² Further, an area significantly larger than the Sanctuary was designated a National Heritage Conservation Area, ensuring that “additional weight” would be given to “conservation considerations in Graeme Hall not only when considering proposed development plans for Graeme Hall itself, but also for areas upstream of Graeme Hall” in its large catchment area.⁹³

78. Additionally, as confirmed by Professor Hunte, the Zoning Changes increased the protection of the Sanctuary, as it is easier to control pollution from “point sources such as commercial operations and residences” than from “non-point sources” such as agriculture.⁹⁴ And, in fact, there has been no intervening development at all, apart from one small project the approval of which was subject to the fulfilment of a number of environmental conditions.⁹⁵
79. Fifth, and finally, the Respondent contends that in fact “the Claimant closed the Sanctuary because it was hemorrhaging money” due to its “failure . . . as a business.”⁹⁶ In particular, the Claimant expected to generate a significant part of his revenue from agreements with package tour and cruise ship operators, but was unable to secure such contracts.⁹⁷

3. The Tribunal’s analysis

80. In this Section, the Tribunal considers whether the Claimant has suffered loss or damage and whether that loss or damage (if any) was caused by actions or inactions of Barbados.
81. The Parties accept that the burden is on the Claimant to establish each factor of loss, as well as causation.
82. The Claimant’s claim is for the loss of the ecotourism attraction constituted by the Sanctuary. Following its closure, its operations now are confined to a roadside café.⁹⁸ The Claimant asserts that

⁹² Counter-Memorial, ¶ 55, referring to Witness Statement by Mr. Mark Cummins dated 13 June 2013 (“First Cummins Statement”), ¶¶ 10-12.

⁹³ Rejoinder, ¶ 171, referring to Witness Statement by Mr. Mark Cummins dated 25 August 2015 (“Second Cummins Statement”), ¶ 11. *See also* Counter-Memorial, ¶ 55; Rejoinder, ¶ 169-173.

⁹⁴ First Hunte Report, pp. 8-9; Counter-Memorial, ¶ 57.

⁹⁵ Hearing Tr., 8 December 2015, 147:10-23 (Respondent’s opening statement), referring to Exhibit R-32, List of Development Applications within the Graeme Hall Conservation Zone from 1992 to 2007. *See also* Rejoinder, ¶ 173, referring to Second Cummins Statement, ¶ 15; Exhibit R-34, Application No. 1974/07/2008D pursuant to Town and Country Planning Act, CAP. 240 (Permission to Develop Subject to Conditions), 2008, p. 4.

⁹⁶ Hearing Tr., 17 December 2015, 1546:7-1547:4 (Respondent’s closing statement).

⁹⁷ Hearing Tr., 8 December 2015, 87:20-91:3 (Respondent’s opening statement).

⁹⁸ Hearing Tr., 17 December 2015, 1516:22-1517:5; 1668:16-17 (Claimant’s closing statement); Rejoinder, ¶ 116.

his investment was to “generate revenue from ticket sales and services provided to visitors,”⁹⁹ and that he was forced to cease operating this business when cumulative environmental damage resulted in a “net deterioration into the value for money that the Sanctuary [could] offer visitors.”¹⁰⁰ As the Claimant put it at the Hearing, “without the natural environment, operating the Sanctuary would essentially be like asking people to visit a zoo without any animals or an aquarium without any fish.”¹⁰¹

83. Following the Jurisdictional Objections phase, the Respondent accepts that the Claimant’s investment “was the business of an eco-tourism site.”¹⁰²
84. Accordingly, to establish loss the Claimant first must establish that there was a degradation of the environment at the Sanctuary sufficient to render operating the Sanctuary as an ecotourism attraction impossible or financially unsustainable. This remains an objective enquiry, uncontrolled by Mr. Allard’s own perception of the degradation of the environment at the Sanctuary.
85. The relevant period of the alleged environmental degradation for consideration is from the Claimant’s initial investment in Barbados in 1996 (on his initial purchase of approximately 29 of the 34.25 acres comprising the Sanctuary site)¹⁰³ to the closure of the Sanctuary as an ecotourism attraction in 2009 (“**Relevant Period**”). The enquiry is whether, by the latter date, the Claimant can prove a sufficient change had occurred in the environmental conditions at the Sanctuary to justify his decision to close.
86. As to causation, the Claimant must show that any environmental damage to the Sanctuary that can be proved was caused by actions or inactions of Barbados and, in particular, by the mismanagement of the Sluice Gate.

(a) Factual analysis – Alleged degradation

87. As noted, the Parties’ principal factual dispute is whether there was such a degradation of the environment at the Sanctuary during the Relevant Period as to render its operation as an ecotourism

⁹⁹ Hearing Tr., 8 December 2015, 41:18-22 (Claimant’s opening statement).

¹⁰⁰ Hearing Tr., 17 December 2015, 1510:14-16 (Claimant’s closing statement).

¹⁰¹ Hearing Tr., 8 December 2015, 41:23-25 (Claimant’s opening statement).

¹⁰² Hearing Tr., 17 December 2015, 1539:3-4 (Respondent’s closing statement). *See also* Hearing Tr., 17 December 2015, 1629:17-20 (Respondent’s closing statement): “The investment was the purchase of what was about 90 percent of the site in December of 1996, with the intention of pursuing it as an eco-tourism venture.”

¹⁰³ Exhibit C-17, Property conveyance between Property Consultants Ltd. and GHNSI, 20 December 1996.

attraction impossible or financially unsustainable justifying closure. They refer to the following parameters:

- (i) water salinity;
- (ii) other water quality parameters;
- (iii) the health of the mangroves;
- (iv) the diversity and health of fish;
- (v) the diversity and health of birds; and
- (vi) the health of crabs.

The Tribunal examines each of these parameters in turn.

(i) *Water salinity*

88. The Parties' environmental experts agree that water salinity may be taken as an indicator of the Sanctuary's environmental health, as a sharp decline in salinity may harm the mangrove ecosystem.¹⁰⁴ However, the experts disagree as to whether, as a matter of fact, during the Relevant Period:

- (i) the salinity of the Sanctuary waters declined; and
- (ii) the Sanctuary waters became either entirely fresh or so fresh as to be harmful to the mangrove ecosystem.¹⁰⁵

89. The experts agree that salinity is measured by reference to the dissolved salt content of a body of water, expressed by them in ppt. Divergent classification systems accept that fresh water has salinity of less than 2 or 5 ppt; brackish water corresponds to salinity between 3 or 6 and 16 or 29 ppt; and saline water has salinity either 16 or 29 ppt and above.¹⁰⁶ The Tribunal need not make findings as to which of these ranges is definitive at each level.

90. The Tribunal has before it salinity data from five sources, covering different dates or periods:

¹⁰⁴ See discussion of the potential impact of a decline in salinity on the health of mangroves at paragraphs 114-115 below. *See also* First EEC Report, ¶¶ 13, 20-21, 42-46, 61, 63; Expert Report on Mangrove Conditions by Thomas F. Ries, Scheda Ecological Associates, Inc, 20 April 2015 ("Scheda Report"), pp. 7-9; Hearing Tr., 16 December 2015, 1138: 7-11 (examination of Professor Wayne Hunte).

¹⁰⁵ *See e.g.* Second EEC Report, p. 2; Second Hunte Report, p. 2.

¹⁰⁶ For EEC's definitions, *see* Exhibit C-73, 2010 EEC Report, p. 25; Hearing Tr., 14 December 2015, 875, 967 (examination of Mr. Robert E. Wallace). For Professor Hunte's definitions, *see* Hearing Tr., 15 December 2015, 1134-1136 (examination of Professor Wayne Hunte).

- (i) In 1986, an undergraduate marine biology student, Christopher Parker, in a paper called “Ecological Aspects of the Graeme Hall Swamp—Water Analysis of the Drainage Canal” (“**Parker Paper**”), reported measuring salinity in the canal ranging from 29 to 34 ppt.¹⁰⁷
- (ii) In 1987, Antonia Cattaneo and three other scientists from McGill University, in a report prepared for the Ministry of Housing of Barbados (“**Cattaneo Report**”), indicated having measured salinity in the Sanctuary lake and canal of 19 ppt for all depths.¹⁰⁸
- (iii) In the context of a water quality monitoring programme largely carried out by the University of the West Indies under the supervision of Professor Hunte (“**2001–2003 Monitoring Programme**”), bi-monthly salinity measurements were taken from October 2000 to October 2001 and again from April 2002 to March 2003 at 16 sampling stations (and substations) in the Sanctuary, of which three were located in the lake,¹⁰⁹ and at one sampling station in the canal.¹¹⁰ During the 2000 to 2001 investigation period, the Programme recorded salinity values between 0 and 11.9 ppt in the lake, and between 0 and 15.8 ppt in the canal.¹¹¹ During the 2002 to 2003 investigation period, the Programme recorded salinity values between 4.83 and 10.58 ppt in the lake, and between 4.55 and 8.15 in the canal.¹¹²
- (iv) The Claimant’s environmental experts, EEC, in a technical report dated April 2010 (“**2010 EEC Report**”), indicated that they measured an average salinity of 1.9 ppt at six stations in the lake and south pond in February 2010.¹¹³ In addition to making salinity measurements,

¹⁰⁷ Exhibit C-183, p. 7.

¹⁰⁸ Exhibit C-180, Antonia Cattaneo *et al.*, “A Limnological and Ichthyological Reconnaissance of Graeme Hall Swamp,” July 1987, pp. 12-13.

¹⁰⁹ Stations 7A, 7B and 10.

¹¹⁰ Exhibit C-67, Graeme Hall Nature Sanctuary Water Quality Monitoring Programme, Report for the Period October 2000–October 2001, pp. 1, 5, 26-28, 30; Graeme Hall Nature Sanctuary Water Quality Monitoring Programme, Report No. 2, April 2002–March 2003, filed as Annex B to First Hunte Report, pp. 5, 26-28, 30.

¹¹¹ Exhibit C-67, Graeme Hall Nature Sanctuary Water Quality Monitoring Programme, Report for the Period October 2000–October 2001, p. 23.

¹¹² Other sampling stations were located in the springs, trays, ponds and storm drains. Graeme Hall Nature Sanctuary Water Quality Monitoring Programme, Report No. 2, April 2002–March 2003, p. 30, filed as Annex B to First Hunte Report.

¹¹³ Exhibit C-73, 2010 EEC Report, p. 25. While EEC calculates the average of the values for all the sampling stations located in the lake and the south pond, it may be noted that excluding the south pond stations would only minimally affect the average. Using only the values for stations 7A, 7B and 10, which are labeled “lake” by EEC, yields an average of 1.97 ppt. Additionally excluding the value for station 7A, as does Professor Hunte (Hearing Tr., 15 December 2015, 1115-1116 (examination of Professor Wayne Hunte)), because it is located at the entrance of the south pond, yields an average of 1.95 ppt.

EEC investigated the lake's bottom-dwelling (benthic) community,¹¹⁴ finding predominantly freshwater organisms.¹¹⁵

- (v) In 1993, and during the period 2006–2015, salinity data were collected at the surface of the lake by CARICOMP. The CARICOMP data were submitted to the Tribunal by the Respondent's environmental expert, Professor Hunte, in the form of a graph showing average annual salinity, including: 3.8 ppt for 1993, 1.7 ppt for 2006, 7.7 ppt for 2008, 1.0 ppt for 2010 and 4.0 ppt for 2015.¹¹⁶
91. Relying on data from the Parker Paper, the Cattaneo Report, the 2001–2003 Monitoring Programme and the 2010 EEC Report, ECC argues that the Sanctuary has transformed from a brackish to a fresh water ecosystem.¹¹⁷ In response, Professor Hunte criticizes several of the sources relied upon by EEC and finds support in the CARICOMP data to deny the occurrence of a unidirectional change in salinity.¹¹⁸
92. The Tribunal accepts that there is seasonal variation in the salinity of the Sanctuary waters from lower in the wet season to higher in the dry season. EEC and Professor Hunte acknowledge that this variation was observed and documented in the 2001–2003 Monitoring Programme,¹¹⁹ the only occasion on which salinity at the Sanctuary was systematically studied over a period of time.¹²⁰ It follows that, in comparing salinity values in different periods, care must be taken not to overlook the impact of seasonal variation.

¹¹⁴ Exhibit C-223, Attachment 18 to the 2010 EEC Report, "Analysis of Benthic Samples Collected from the Graeme Hall Nature Preserve," Terra Environmental Services, 9 April 2010.

¹¹⁵ EEC characterizes all of the species found as freshwater (Exhibit C-73, 2010 EEC Report, p. 19; Exhibit C-223, Attachment 18 to 2010 EEC Report, "Analysis of Benthic Samples Collected from the Graeme Hall Nature Preserve," Terra Environmental Services, 9 April 2010, p. 3), while Professor Hunte opines that the two most common of the 17 species found can survive in brackish water (Hearing Tr., 15 December 2015, 1232:15-17 (examination of Professor Wayne Hunte)).

¹¹⁶ Second Hunte Report, pp. 2, 4 and Appendix B, graph of CARICOMP salinity data for 1993–2015.

¹¹⁷ Exhibit C-73, 2010 EEC Report, ¶ 43; Second EEC Report, pp. 5-6; Hearing Tr., 14 December 2015, 960:9-961:25 (examination of Mr. Robert E. Wallace).

¹¹⁸ Second Hunte Report, p. 2.

¹¹⁹ Hearing Tr., 15 December 2015, 1192:6-7 (examination of Professor Wayne Hunte); Hearing Tr., 14 December 2015, 986:13-988:8 (examination of Mr. Robert E. Wallace). *See also* Exhibit C-73, 2010 EEC Report, pp. 10, 28, 30, 32, 41; Hearing Tr., 14 December 2015, 979:3-980:9 (examination of Mr. Robert E. Wallace).

¹²⁰ Exhibit C-67, Graeme Hall Nature Sanctuary Water Quality Monitoring Programme, Report for the Period October 2000–October 2001, p. 3; Graeme Hall Nature Sanctuary Water Quality Monitoring Programme, Report No. 2, April 2002–March 2003, filed as Annex B to First Hunte Report, pp. 6-7.

93. Although the Parker Paper and the Cattaneo Report provide salinity figures only for two discrete dates, the Tribunal attaches significance to the fact that their results are consistent and accepts them as evidence that the level of salinity of the Sanctuary waters was higher in 1986 and 1987 than in 2001 to 2015.
94. The Tribunal is inclined to reject the criticism levelled against these reports by Professor Hunte. Professor Hunte's opinion that the high salinity values of the Parker Paper may be explained by a "significant storm event"¹²¹ is speculative and inconsistent with the Parker Paper's statement that the measurements were taken in a "period of drought."¹²² In any event, such a storm event would only serve to explain why the salinity values of the Parker Paper are higher than those of the Cattaneo Report. Moreover, Professor Hunte's distrust of the values of the Cattaneo Report on the ground that they are inconsistent with the values recorded during the 2001–2003 Monitoring Programme¹²³ appears to be based on an inapt comparison, as the readings are too distant in time to justify any assumption that they should be identical or similar. While, as suggested by Professor Hunte, it is unlikely that a single value (19 ppt) was measured at all depths and locations in the Sanctuary,¹²⁴ this circumstance does not suffice to discredit the Cattaneo Report, but merely to suggest that the salinity value quoted is an approximation. Professor Hunte agreed that the authors of the Cattaneo Report were highly trained scientists,¹²⁵ and they themselves stated that "[s]alinityf was about 19 parts per thousand . . . at all depths and stations sampled."¹²⁶
95. As for the period 2001 to 2015, all sources of information, namely the 2001–2003 Monitoring Programme, the 2010 EEC Report and the CARICOMP programme, record salinity readings in the lake and the canal (whether in the wet or dry season) lower than the 19 ppt recorded in the lake by the Cattaneo Report and the 29 to 34 ppt recorded in the canal by the Parker Paper during the dry season.¹²⁷ Professor Hunte's hypothesis that the low salinity value of February 2010 may have

¹²¹ Hearing Tr., 15 December 2015, 1189:2-13 (examination of Professor Wayne Hunte).

¹²² Exhibit C-183, Parker Paper, p. 10. The Tribunal does not find the reported presence of uprooted sea grass in the canal to be significant, where the Parker Paper itself does not mention any notable climatic conditions.

¹²³ Hearing Tr., 15 December 2015, 1199:2-1200:13 (examination of Professor Wayne Hunte). *See also* Supplementary Hunte Report.

¹²⁴ Hearing Tr., 15 December 2015, 1197:15-1198:24 (examination of Professor Wayne Hunte). *See also* Supplementary Hunte Report.

¹²⁵ Hearing Tr., 15 December 2015, 119:8-12 (examination of Professor Wayne Hunte).

¹²⁶ Exhibit C-180, Cattaneo Report, p.12 (emphasis added).

¹²⁷ As mentioned above, the salinity measurements of the Parker Paper were taken during a "period of drought." Exhibit C-183, Parker Paper, p. 10. The measurements of the Cattaneo Report were taken in April, a typically dry month. Exhibit C-180, Cattaneo Report, pp. 4-5.

resulted from the pumping of fresh water into the Sanctuary by the Claimant's employees¹²⁸ was raised by the Claimant's own environmental experts in their early report,¹²⁹ noting observations of the level of the lake rising "by several centimetres without the aid of rainfall" during the pumping event.¹³⁰ However, as the direct evidence of the limited capacity and use of the pump to effect such dilutions militates to the contrary,¹³¹ the Tribunal is unable to find that the values of the 2010 EEC Report resulted from the pumping of fresh water.

96. It therefore appears to the Tribunal that salinity levels at the Sanctuary decreased in the period spanning 1986 to 2015, but the question of whether this change occurred during the Relevant Period is left open.
97. The data from the 2001–2003 Monitoring Programme, the 2010 EEC Report and CARICOMP must be examined more closely to answer the latter question. Both EEC and Professor Hunte appear to accept the data from the 2001–2003 Monitoring Programme as reliable. The Tribunal has already noted that the data from the 2010 EEC Report cannot be explained away based on the pumping of fresh water into the Sanctuary. As regards the CARICOMP data, the Tribunal accepts the criticism made by EEC that they are presented "as a graph with no information on sample location, depth or month of the year."¹³² The Tribunal would have preferred for the CARICOMP data to be better documented; nonetheless, the CARICOMP data correlates with the salinity values obtained by EEC in February 2010. Professor Hunte's indication that CARICOMP tested the surface of the lake¹³³ to collect "at least ten samples per time period"¹³⁴ suggests that seasonal variation was not overlooked. Taking account of all of these factors, the Tribunal is of the view that the CARICOMP data may also be relied upon.
98. To establish that the decline in salinity occurred during the Relevant Period, EEC compares the average salinity value measured in the lake and south pond in April 2002 (8.4 ppt) with the average

¹²⁸ See e.g. First Hunte Report, p. 5.

¹²⁹ Exhibit C-73, 2010 EEC Report, p. 18: "In periods of drought, the Sanctuary pumps freshwater from the springs to assist with hydration. Such pumping occurred during the monitoring event."

¹³⁰ Exhibit C-73, 2010 EEC Report, p. 18.

¹³¹ Second EEC Report, p. 7: "The pump was reported by Ryan Chenery to deliver about 5-7 gallons per minute of water. . . The lake, trays and ponds comprise about 12 acres of water. The lake is about 8 acres of the total. This small pump definitely could not be accused of turning the lake system into a freshwater system." See also Chenery Statement, ¶¶ 37-40; Hearing Tr., 10 December 2015, 479:10-480:20 (examination of Mr. Ryan Chenery).

¹³² Supplementary Wallace Report, p. 2.

¹³³ Second Hunte Report, p. 4.

¹³⁴ Hearing Tr., 15 December 2015, 1211:23 (examination of Professor Wayne Hunte).

value measured in the lake and south pond in February 2010 (1.9 ppt).¹³⁵ However, while this comparison is adequate from the perspective of seasonal variation, as both April 2002 and February 2010 were dry months, the Tribunal finds this comparison inconclusive for other reasons.

99. First, in addition to seasonal variation, the data from the 2001–2003 Monitoring Programme and CARICOMP suggest that there is inter-annual variation in salinity levels at the Sanctuary. The reports from the 2001–2003 Monitoring Programme conclude that there was “statistically significant” variation in levels of salinity between the 2000 to 2001, and the 2002 to 2003, investigation periods.¹³⁶ The CARICOMP data similarly display inter-annual variation; for example, with average values of 1.7 ppt for 2006, 7.7 ppt for 2008 and 1.0 ppt for 2010. As a result of this inter-annual variation, a comparison of data collected at discrete moments in time cannot serve to show a trend.
100. Second, salinity values were generally higher during the 2002–2003 investigation period, chosen by EEC for its comparison, than during the 2000–2001 investigation period.¹³⁷ For the same locations in the lake and south pond, the average salinity value in drier months of the 2000–2001 period (February to April) was not 8.4 ppt, but only 4.6 ppt.¹³⁸
101. Third, the Tribunal observes that all the salinity values for the years from 2005 to 2015 recorded by both EEC and CARICOMP fall well within the range of values measured in the context of the 2001–2003 Monitoring Programme.
102. In summary, in its consideration of the available evidence, the Tribunal concludes that although salinity levels at the Sanctuary decreased over the full period for which data is available from 1986 to 2015, the Claimant has failed to demonstrate that this change occurred during the Relevant Period.
103. As to the question of whether, by 2009, the Sanctuary waters could be said to have become entirely fresh or so fresh as to harm the mangrove ecosystem, the actual impact of the Sanctuary’s salinity levels on the mangrove ecosystem is discussed in Subsections (iii)–(v) below.

¹³⁵ First EEC Report, ¶ 43, referring to Exhibit C-73, 2010 EEC Report, p. 55.

¹³⁶ Graeme Hall Nature Sanctuary Water Quality Monitoring Programme, Report No. 2, April 2002–March 2003, filed as Annex B to First Hunte Report, pp. 10-11.

¹³⁷ Graeme Hall Nature Sanctuary Water Quality Monitoring Programme, Report No. 2, April 2002–March 2003, filed as Annex B to First Hunte Report, p. 11.

¹³⁸ Exhibit C-221, Attachment 16A to 2010 EEC Report.

(ii) *Other water quality parameters*

104. Two sets of data for water quality parameters other than salinity are available for the Sanctuary, namely:
- (i) data collected in the context of the 2001–2003 Monitoring Programme;¹³⁹ and
 - (ii) data collected by EEC in February 2010.¹⁴⁰
105. On each occasion, the water bodies of the Sanctuary were tested for levels of dissolved oxygen, where higher levels indicate better water quality, as well as biological oxygen demand and levels of heavy metals, ammonia, nitrate, phosphate, phosphorus, suspended solids, faecal coliform and faecal streptococci, where lower values indicate better water quality.¹⁴¹
106. In their analysis of the data, the Parties’ respective environmental experts draw contrary conclusions: EEC find that water quality declined “on a number of important parameters,”¹⁴² whilst Professor Hunte asserts that water quality improved “for all indicators measured.”¹⁴³
107. These contrary conclusions appear to arise from the experts’ choices in the selection of data for comparison. EEC compared data collected at six sampling stations located in the Sanctuary lake and south pond in February 2010, a month of low rainfall, with data collected at similar locations in the drier months of the period 2001–2003 (*i.e.*, February to April 2001 and April 2002).¹⁴⁴ In contrast, Professor Hunte compared data collected at two sampling stations in the lake in February 2010 with data collected at similar locations during the entire investigation period of April 2002 to March 2003¹⁴⁵ or, alternatively, with data from February 2003.¹⁴⁶

¹³⁹ Exhibit C-67, Graeme Hall Nature Sanctuary Water Quality Monitoring Programme, Report for the Period October 2000–October 2001; Graeme Hall Nature Sanctuary Water Quality Monitoring Programme, Report No. 2, April 2002–March 2003, filed as Annex B to First Hunte Report. *See also* Hearing Tr., 15 December 2015, 1122-1125 (examination of Professor Wayne Hunte).

¹⁴⁰ Exhibit C-73, 2010 EEC Report.

¹⁴¹ *See* Second Hunte Report, pp. 8-10.

¹⁴² Second EEC Report, p. 14. EEC indicates that there was an increase in the levels of ammonia, nitrate, TSS, phosphorus, copper, iron, zinc as well as a decline in dissolved oxygen. EEC also points to an increase in the levels of faecal coliform and streptococci at some locations. Second EEC Report, pp. 14-16.

¹⁴³ Second Hunte Report, p. 10.

¹⁴⁴ Hearing Tr., 14 December 2015, 986:18-23 (examination of Mr. Robert E. Wallace); Exhibit C-221, Appendix 16 to 2010 EEC Report.

¹⁴⁵ Second Hunte Report, p. 8.

¹⁴⁶ Second Hunte Report, p. 8; Hearing Tr., 15 December 2015, 1238-1240 (examination of Professor Wayne Hunte).

108. At the Hearing, Mr. Wallace (speaking to the EEC reports) and Professor Hunte defended their respective methodologies. They agreed that, as with water salinity, there is seasonal variation in the other parameters of water quality,¹⁴⁷ as supported by the outcome of the 2001–2003 Monitoring Programme.¹⁴⁸ However, they disagreed as to the factors causing the agreed seasonal variation: Mr. Wallace insisted on the importance of rainfall (which increases the natural run-off of water, and therefore contaminants, biological waste and detritus, from the entire catchment area).¹⁴⁹ Professor Hunte suggested that there may be other factors of seasonal variation, such as temperature and the “degree of groundwater discharge into the lake.”¹⁵⁰ On this issue, the Tribunal notes that, unlike the case of water salinity, the reports of the 2001–2003 Monitoring Programme do not state a clear conclusion regarding the impact of rainfall as a factor of seasonal variation.
109. In all the circumstances, on this issue as to the seasonal variation in the parameters of water quality, the Tribunal concludes that the precise factors are not well known or understood and remain contested to the extent that no clear finding may be made. On any view, it is apparent that data collected in a single sampling event of February 2010 does not provide sufficient information for conclusions to be drawn regarding the evolution of water quality at the Sanctuary during the Relevant Period. Additionally, the fact that different methodologies yield different and opposing trends suggests to the Tribunal that, as likely as not, any changes that may have occurred in the water quality of the Sanctuary during the Relevant Period are within the bounds of seasonal variation.
110. In summary on this issue, given the differences in approach of the experts and the insufficiency of available data, the Claimant has failed to discharge his burden of proof to establish that there was a decline in the parameters of water quality (other than salinity) at the Sanctuary during the Relevant Period.
111. The Claimant separately claims that the severity of environmental issues such as “bad odours” and “stagnant water,” which existed before he purchased the Sanctuary grounds,¹⁵¹ increased during the

¹⁴⁷ Hearing Tr., 14 December 2015, 987-989 (examination of Mr. Robert E. Wallace); Hearing Tr., 15 December 2015, 1237:4-17 (examination of Professor Wayne Hunte).

¹⁴⁸ Exhibit C-67, Graeme Hall Nature Sanctuary Water Quality Monitoring Programme, Report for the Period October 2000–October 2001, p. 3: “Most water quality parameters measured in the Graeme Hall swamp area appeared to differ between months.”

¹⁴⁹ Hearing Tr., 14 December 2015, 987:24-989:4 (examination of Mr. Robert E. Wallace).

¹⁵⁰ Hearing Tr., 15 December 2015, 1239:13-19 (examination of Professor Wayne Hunte).

¹⁵¹ See e.g. Exhibit C-180, Cattaneo Report, 1987, p. 14: “It is this which gives the water its tea-coloured stain. Such discoloration is entirely natural. It is derived from breakdown products of leaf litter. In general the water of mangals is typically very hard and brown”; p. 22: “[T]here was a distinct odor of rotten eggs about the swamp at dawn on

Relevant Period.¹⁵² However, the evidence for this is anecdotal and, wholly apart from the question of causality, does not support any finding that these issues worsened with time.

(iii) *Health of the mangroves*

112. On the contested issue of decline in the mangroves' health during the Relevant Period, the Tribunal has been presented with:

- (i) the testimony of Mr. Chenery that, between 2004 and 2009, he “observed red spots beginning to develop on the leaves of the mangrove trees” and “noted that the leaves began taking on a greyish tinge”;¹⁵³
- (ii) the observation of Mr. Angelo Tulumieri, the scientist employed by EEC to assess the health of the mangroves in February 2010, that they were “verdant and healthy” and that “the gaps in the canopy appeared to be small and few in number”;¹⁵⁴
- (iii) the testimony of Professor Hunte that the mangroves looked healthy when he last visited the Sanctuary in 2008;¹⁵⁵ and
- (iv) the tender of the 2015 Photograph, taken by Mr. Ries shortly before the Hearing, as establishing yellowing of the mangrove leaves.¹⁵⁶

113. It may first be noted that, at the Hearing, Mr. Chenery recognized that he is not an expert in mangroves.¹⁵⁷

114. At the same time, despite his conclusion that the mangroves looked verdant and healthy in February 2010, Mr. Tulumieri's report warned that, if the alleged freshwater conditions at the Sanctuary were to persist, the mangrove ecosystem “may [be] permanently eliminate[d].”¹⁵⁸ Mr. Tulumieri explained that mangroves “show excellent growth in freshwater but lose the competitive advantage that they

April 11. This gas likely results from decomposition in the mud and trays of the swamp surrounding the lake and is indicative of intense biological activity. It is not an indication of unnatural pollution.”

¹⁵² Statement of Claim, ¶ 76; Hearing Tr., 17 December 2015, 1439:2-4, 1660:2-16 (Claimant's closing statement).

¹⁵³ Chenery Statement, ¶ 26. *See also* Hearing Tr., 10 December 2015, 529:23-25 (examination of Mr. Ryan Chenery): “. . . the mangroves, looked stressed. They looked much healthier than what I had been accustomed to seeing.”

¹⁵⁴ Exhibit C-217, Attachment 11 to 2010 EEC Report, Mangrove Quality Assessment by Angelo Tulumieri, p. 7 of the PDF.

¹⁵⁵ Hearing Tr., 15 December 2015, 1106:11-25 (examination of Professor Wayne Hunte).

¹⁵⁶ Exhibit C-288.

¹⁵⁷ Hearing Tr., 10 December 2015, 529:2-5; 531:19-25 (examination of Mr. Ryan Chenery).

¹⁵⁸ Exhibit C-217, Attachment 11 to 2010 EEC Report, Mangrove Quality Assessment by Angelo Tulumieri, p. 11 of the PDF.

enjoy in saltwater and brackish water.”¹⁵⁹ Once that competitive advantage is lost, “any perturbation to the mangrove canopy, such as lightning or hurricane, may kill mangroves and may create an opening or openings in the mangrove canopy for opportunistic plant species to invade.”¹⁶⁰ The Claimants’ environmental experts, EEC and Mr. Thomas F. Ries of Scheda Ecological Associates Inc., restated and confirmed this assessment in their expert reports.¹⁶¹ EEC and Mr. Ries further explained that regular tidal exchange is a key element to ensuring the mangroves’ competitive advantage.¹⁶² Professor Hunte also agreed that mangroves lose their competitive advantage in fresh water.¹⁶³

115. On this issue, on which all the experts appear to agree, the Tribunal accepts that in fresh water (and in the absence of regular tides), mangroves may eventually be outcompeted by fresh water species. However, here the Claimant has not demonstrated the fact of any such fresh water transformation of the Sanctuary over the Relevant Period. That the damage to the mangroves contemplated by this theory lies in the future was accepted both by Mr. Allard and his environmental experts.¹⁶⁴ On no view has the Claimant established that the danger of mangrove extinction was imminent at the time of the Sanctuary’s closure in 2009. Six years later, whilst testifying that “we will start seeing death in the system,”¹⁶⁵ Mr. Ries could only point to the yellowing of leaves as a first sign of stress.¹⁶⁶ He

¹⁵⁹ Exhibit C-217, Attachment 11 to 2010 EEC Report, Mangrove Quality Assessment by Angelo Tulmieri, p. 26 of the PDF.

¹⁶⁰ Exhibit C-217, Attachment 11 to 2010 EEC Report, Mangrove Quality Assessment by Angelo Tulmieri, p. 26 of the PDF.

¹⁶¹ First EEC Report, ¶¶ 21, 63; Scheda Report, pp. 7-9. *See also* Exhibit C-73, 2010 EEC Report, pp. 16, 21-22; Hearing Tr., 8 December 2015; 70:7-14 (Claimant’s opening statement).

¹⁶² Scheda Report, p. 7: “The importance of tidal fluctuations for mangroves can be described in the following way: tidal stress (alternate wetting and drying), in combination with salinity, helps exclude most other vascular plants and thus reduces competition . . .”; Hearing Tr., 14 December 2015, 1020:15-22 (examination of Mr. Robert E. Wallace):

Wet mangroves in particular require inundation and water level. They cannot stand in [the] same water level for very long periods of time, and that puts a stress on the system. And permanent inundation in mangrove systems is a number one of the primary reasons in the world why mangroves have massive die-offs, [there are] many reports that show that.

¹⁶³ Hearing Tr., 15 December 2015, 1138:7-11 (examination of Professor Wayne Hunte).

¹⁶⁴ Hearing Tr., 9 December 2015, 284:1-13 (examination of Mr. Peter A. Allard); Hearing Tr., 14 December 2015, 995:1-12 (examination of Mr. Robert E. Wallace); Hearing Tr., 15 December 2015, 1082:8-1083:2 (examination of Mr. Thomas F. Ries).

¹⁶⁵ Hearing Tr., 15 December 2015, 1100:16-17 (examination of Mr. Thomas F. Ries).

¹⁶⁶ Hearing Tr., 15 December 2015, 1099:22-34 (examination of Mr. Thomas F. Ries). The Tribunal notes that Dr. Lorna Inniss also visited the Sanctuary in 2015 and testified at the Hearing that the “mangroves seemed extremely healthy” (Hearing Tr., 11 December 2015, 800:24). However, like Mr. Chenery, Dr. Inniss does not appear to be an expert in mangroves.

recognized that he cannot predict how long the mangroves will survive if current conditions persist,¹⁶⁷ and agreed that it could be over ten years.¹⁶⁸ Similarly, Mr. Tulumieri wrote in his 2010 report that “[t]he conversion from a brackish mangrove wetland to a freshwater wetland in which freshwater plants replace mangroves may take a long time.”¹⁶⁹

116. Findings as to the decline in the health of the mangroves over the Relevant Period cannot be inferred from consideration of the 2015 Photograph taken six years later.
117. For these reasons, the Tribunal concludes that the Claimant has not established that the health of the mangroves deteriorated during the Relevant Period to such an extent as to render the Sanctuary’s operation as an ecotourism attraction impossible or financially unsustainable.

(iv) *Diversity and health of fish*

118. The Claimant asserts that, during the Relevant Period, the number of fish species at the Sanctuary declined and fish kills became more frequent.¹⁷⁰ EEC links the decline in fish diversity to the alleged freshwater transformation of the Sanctuary and the upsurge of fish kills to the alleged accumulation of pollutants in its waters.¹⁷¹
119. To establish the decline in fish species, EEC compares the fish species count of the 1987 Cattaneo Report, which identified nine marine and nine fresh water species, with counts by Mr. Chenery over the period 2005 to 2009, during which he identified only three marine and eight fresh water species.¹⁷² The Claimant also relies on the report by Dr. Karl Watson, an early collaborator on the Sanctuary project, that 42 species of fish were catalogued at the Sanctuary before 1996.¹⁷³
120. In the Tribunal’s view, Dr. Watson’s statement about fish is unsupported and, indeed, contradicted by other evidence. He states that 42 fish species were identified by a Dr. Robin Mahon, whom Mr. Allard engaged to “conduct a survey of the fish population . . . as part of the preparation for the

¹⁶⁷ Hearing Tr., 15 December 2015, 1093-1095 (examination of Mr. Thomas F. Ries).

¹⁶⁸ Hearing Tr., 15 December 2015, 1094:10-15 (examination of Mr. Thomas F. Ries).

¹⁶⁹ Exhibit C-217, Attachment 11 to 2010 EEC Report, Mangrove Quality Assessment by Angelo Tulumieri, p. 11 of the PDF.

¹⁷⁰ Statement of Claim, ¶ 76(c); Reply, ¶ 62; Hearing Tr., 17 December 2015, 1510:23-25, 1660:5-10 (Claimant’s closing statement).

¹⁷¹ Second EEC Report, pp. 13-14, 17.

¹⁷² Second EEC Report, p. 13, referring to Exhibits C-180, Cattaneo Report; C-169, Summary of aquatic species prepared by Mr. Ryan Chenery. *See also* Hearing Tr., 14 December 2015, 1021 (examination of Mr. Robert E. Wallace); Exhibit C-170, Mr. Ryan Chenery’s fish count records.

¹⁷³ Reply, ¶ 62.

submission of the government required Environmental Impact Assessment.”¹⁷⁴ Yet Mr. Allard’s two environmental management plans make no reference to Dr. Mahon, while the Amended EMP identifies only 21 fish species.¹⁷⁵

121. Moreover, the very different survey methods used prevent any meaningful comparison between the fish species counts produced by the authors of the Cattaneo Report and Mr. Chenery. For the Cattaneo Report, fish “were collected by seine, dip net and minnow trap from the margins of the lake as well as the sedge marsh and the mangrove swamp.”¹⁷⁶ Of the 18 fish species identified, only one was found through visual sighting.¹⁷⁷ By contrast, Mr. Chenery relied solely on visual reconnaissance, in the context of frequent walks through the Sanctuary during which he was also preoccupied with identifying other fauna and flora and, moreover, was sometimes accompanied by tourists.¹⁷⁸ At the Hearing, Mr. Wallace agreed, with respect to the methods used by the authors of the Cattaneo Report and Mr. Chenery, that “[t]here is a difference and [that] if you were doing statistical analysis, they wouldn’t hold up,” explaining that “[y]ou would want to do the same methodology, if you want[ed] to compare over time.”¹⁷⁹
122. In any event, even if the Cattaneo Report’s and Mr. Chenery’s fish species counts could be meaningfully compared, they could not suffice to show that any decline in fish diversity occurred between 1996 and 2010, rather than between 1987 and 1996.
123. With regard to the fish kills, it is common ground between the Parties that they occasionally occurred before Mr. Allard purchased the Sanctuary.¹⁸⁰ The experts agree that fish kills may occur in the absence of any toxic compounds in the water, arising from oxygen depletion, usually when storm water run-off carrying large amounts of organic debris increases the oxygen demand of the water column.¹⁸¹ There is no evidence here that fish kills resulted from the release of any toxic compounds in the water. The laboratory testing of dead tilapia carried out for the 2010 EEC Report showed that

¹⁷⁴ Watson Statement, ¶ 11.

¹⁷⁵ Exhibit C-44, Amended EMP, p. 28.

¹⁷⁶ Exhibit C-180, Cattaneo Report, p. 27.

¹⁷⁷ Exhibit C-180, Cattaneo Report, p. 28. *See also* Hearing Tr., 14 December 2015, 1037:11-14 (examination of Mr. Robert E. Wallace).

¹⁷⁸ Hearing Tr., 10 December 2015, 519-520, 524 (examination of Mr. Ryan Chenery).

¹⁷⁹ Hearing Tr., 14 December 2015, 1038:3-18 (examination of Mr. Robert E. Wallace).

¹⁸⁰ Hearing Tr., 8 December 2015, 94:2-3 (Respondent’s opening statement); Hearing Tr., 8 December 2015, 201:7-10 (examination of Mr. Peter A. Allard): “I heard here were some occasional fish kills, yes.” *See also* Exhibit C-180, Cattaneo Report, April 1987, p. 4, referring to “past massive fishkills in the pond.”

¹⁸¹ Exhibit C-73, 2010 EEC Report, p. 47; First EEC Report, ¶ 55; First Hunte Report, p. 6.

they “appeared to be in good health” despite some minor, non-lethal health issues,¹⁸² and the 2010 EEC Report identified oxygen depletion as “the most likely explanation of fish kills,”¹⁸³ a conclusion in which Professor Hunte concurs.¹⁸⁴ The only exception is that a fish kill anecdotally is reported to have followed the 2005 sewage spill.¹⁸⁵ However, as discussed below, this spill had no lasting effect on the Sanctuary¹⁸⁶ and accordingly could not be characterised as part of a continuing trend of increasing fish mortality arising from toxicity.

124. The Claimant has also failed to establish that fish kills became more frequent during the Relevant Period arising from any increase in the frequency and severity of oxygen depletion episodes (as resulting, according to EEC, from the accumulation of debris from storm water run-off caused by the infrequent operation of the Sluice Gate).¹⁸⁷
125. Indeed, EEC relies upon records of fish found dead kept by Mr. Stuart Heaslet, a consultant and employee of the Sanctuary, and Mr. Chenery.¹⁸⁸ However, the records appear to cover only the years 2000 to 2001 and 2006 to 2009. The largest fish kill (3,000 fish) occurred in 2001, most likely as a one-off event resulting from works carried out by the Ministry of Transport and Public Works. The records also show that, although the second largest fish kill occurred in 2008 with 200 dead fish, more fish were found dead in 2000 (184) than in 2006 (88), 2007 (110) or 2009 (50). Hence, the records do not show an increase, let alone a significant and constant increase, in the number of fish kills over the Relevant Period.

¹⁸² Exhibit C-225, Attachment 20 to 2010 EEC Report, University of Florida, Tilapia and Crab Analysis, 30 March 2010.

¹⁸³ Exhibit C-73, 2010 EEC Report, p. 47.

¹⁸⁴ First Hunte Report, p. 6.

¹⁸⁵ Exhibit C-73, 2010 EEC Report, p. 45: “Fish kills also were reported anecdotally in association with a massive untreated wastewater release into the Graeme Hall Wetland in July 2005.”

¹⁸⁶ See paragraph 145 below.

¹⁸⁷ EEC summarizes the disagreement as follows:

With no outlet to the sea to allow flushing, and a growing muck layer on the bottom which restricts water flow, the suspended solids accumulate. Prof. Hunte sees this as a natural event and not related to pollution. Due to the lack of flushing, we see this as a continual pollutant load that unnaturally accumulates each year. Poor circulation in the absence of tidal flushing contributes to the low [dissolved oxygen]. The relationship between high volumes of stormwater runoff and entrained pollutant that cause water degradation is a primary factor in fish kills.

Second EEC Report, p. 17.

¹⁸⁸ Exhibit C-73, 2010 EEC Report, p. 24; Exhibit C-224, Attachment 19 to 2010 EEC Report, “GHNS Biological Report Comments Regarding Fishkill Events 2000–2003 and Ryan Chenery Log of Fishkills 2006–2009.”

126. In summary, the Tribunal concludes that the Claimant has not established that there was either a decline in the numbers of fish species or an increase in the frequency of fish kills at the Sanctuary during the Relevant Period.

(v) *Diversity and number of birds*

127. The Claimant asserts that there was a steady decline in bird species and population at the Sanctuary during the Relevant Period.¹⁸⁹ EEC supports this assertion, first, by comparing the number of bird species referred to in the 2005 designation of the Graeme Hall Swamp under the *Convention on Wetlands of International Importance especially as Waterfowl Habitat* (“**RAMSAR Convention**”) (84) with the number of bird species observed by Mr. Chenery at the Sanctuary from 8 to 13 February 2010 (37) and, second, by noting a decline in the number of bird species observed by Mr. Chenery between 2005 and 2009.¹⁹⁰ The Claimant’s estimate of the decline in the bird population also is based on Mr. Chenery’s observations.¹⁹¹

128. With respect to EEC’s first comparison, in the absence of any information concerning the source or sources of the bird species count of the RAMSAR designation, the Tribunal is left to assume that this count includes *all* of the species reported to have been observed, whether during systematic surveys, or in individual sightings by bird enthusiasts, over a lengthy period, perhaps running back to when the Sanctuary was operated as a shooting swamp and measures were being taken to attract wading birds.¹⁹² On no view, may any such total count of birds ever observed in the Graeme Hall Swamp be meaningfully compared to the number of birds observed by Mr. Chenery in the Sanctuary within six days in February 2010.

129. With respect to EEC’s second comparison, Mr. Chenery’s records for 2009 are to be disregarded, as data was collected only until the end of March.¹⁹³ For the earlier years, Mr. Chenery states that, by walking through the Sanctuary, he observed 45 species in 2005, 44 in 2006, 35 in 2007 and 30 in 2008.¹⁹⁴ However, he only recorded sightings of uncommon breeding residents and migratory birds,

¹⁸⁹ Reply, ¶ 62(d).

¹⁹⁰ Exhibit C-73, 2010 EEC Report, p. 21; First EEC Report, ¶ 19; Second EEC Report, p. 13; Hearing Tr., 14 December 2015, 1000; 1023:17-25 (examination of Mr. Robert E. Wallace). *See also* Exhibit C-211, RAMSAR designation, 2005; Chenery Statement, ¶¶ 33-35.

¹⁹¹ Reply, ¶ 62(d). *See also* Chenery Statement, ¶ 36, referring to Exhibit C-171, Avian Census Report.

¹⁹² As explained in Exhibit C-43, First EMP, p. 9, the Sanctuary may have become less attractive to certain species of birds after organized shooting ceased in the early 1970s due to changes in the design of the area.

¹⁹³ Hearing Tr., 10 December 2015, 494:17-19 (examination of Mr. Ryan Chenery).

¹⁹⁴ Chenery Statement, ¶ 35.

excluding common breeding residents;¹⁹⁵ in other words, sightings of birds “that visitors pay money to go see at the Sanctuary.”¹⁹⁶ In differentiating common and uncommon breeding residents, Mr. Chenery must have exercised a degree of subjective judgment that makes comparisons with earlier reported populations almost meaningless.

130. Even if a comparison of Mr. Chenery’s own annual records is essayed, its reliability is uncertain. Professor Hunte suggested that the decreasing number of bird sightings by Mr. Chenery between 2004 and 2008 may be explained by the fact that Mr. Chenery took fewer bird walks in later years.¹⁹⁷ At the Hearing, Mr. Chenery confirmed that his records do not distinguish between days on which he went on a bird walk, but did not see any birds, and days when he did not go on a bird walk.¹⁹⁸ Mr. Chenery also explained that, in general, the frequency of his bird walks did not vary from year to year: he would usually walk the same route through the Sanctuary twice a day, five or six days a week, with limited exceptions.¹⁹⁹
131. Mr. Chenery also explained that, although he conducted bird walks every single month during the period 2005 to 2008, for purposes of comparison he used only six months for each year.²⁰⁰ By contrast, Professor Hunte, analysing Mr. Chenery’s complete sighting notes for all twelve months of the year, calculated that Mr. Chenery had observed 48 species in 2005, 38 species in 2007, and 36 species in 2008.²⁰¹ These figures were not challenged by the Claimant’s environmental experts or by Mr. Chenery.²⁰² While the Tribunal understands that Mr. Chenery limited his inquiry to six months each year so as to render possible a comparison with other years for which only incomplete data is available, it observes that Professor Hunte’s figures suggest a less dramatic decline in bird species than those presented by Mr. Chenery.
132. The Tribunal accepts Mr. Chenery to have been an honest and truthful witness; at the same time, the Tribunal is aware that it is at the mercy of Mr. Chenery’s memory and that there is no way of telling

¹⁹⁵ Hearing Tr., 10 December 2015, 438:9-439:6 (examination of Mr. Ryan Chenery).

¹⁹⁶ Hearing Tr., 17 December 2015, 1508:13-14 (Claimant’s closing statement).

¹⁹⁷ Second Hunte Report, p. 15.

¹⁹⁸ Hearing Tr., 10 December 2015, 490:7-14 (examination of Mr. Ryan Chenery).

¹⁹⁹ Hearing Tr., 10 December 2015, 490:14-25 (examination of Mr. Ryan Chenery).

²⁰⁰ Hearing Tr., 10 December 2015, 496 (examination of Mr. Ryan Chenery).

²⁰¹ Second Hunte Report, p. 16.

²⁰² See Hearing Tr., 10 December 2015, 495-496:2 (examination of Mr. Ryan Chenery).

whether Mr. Chenery took as many walks, or was as attentive, in later years as when he first started working at the Sanctuary.

133. Overall, having examined the methodology following which Mr. Chenery's bird records were collected, the Tribunal concludes that it is not established that there was a decrease in bird diversity at the Sanctuary during the Relevant Period. Nor do Mr. Chenery's records establish a decrease in the bird population. In any event, on no view did the Claimant establish a reduction in bird diversity and population such as to render the Sanctuary as an ecotourism attraction impossible or financially unsustainable to operate.

(vi) *Health of crabs*

134. The Claimant asserts that the health of crabs at the Sanctuary was also affected,²⁰³ based on Mr. Chenery's testimony that in 2009 he saw fewer fiddler crabs at the Sanctuary than previously and his record of one dead fiddler crab and 22 dead blue land crabs found at the Sanctuary between April and August 2009.²⁰⁴
135. Even accepting Mr. Chenery's observations made during a brief period in 2009, there is no basis to link any decline in these sightings to a pattern of environmental deterioration of the Sanctuary.
136. As to blue land crabs, the Tribunal is inclined to agree with Professor Hunte's opinion that "[t]he reporting of blue crab kills in a single year is clearly not evidence of a decrease in number over time."²⁰⁵ Additionally, the Claimant has not shown that the blue land crab deaths were related to his grounds of complaint in this arbitration. Indeed, and to the contrary, the laboratory analysis of blue land crabs showed that they "ha[d] no significant pathogens, lesions, or remarkable features."²⁰⁶
137. The Tribunal also cannot conclude from Mr. Chenery's impressions alone that the population of fiddler crabs decreased.
138. In any event, several theories have been suggested by the Parties' experts to explain a possible reduction of the fiddler crab population, including the lack of tidal exchange (which, in the

²⁰³ Reply, ¶ 62(b).

²⁰⁴ Chenery Statement, ¶¶ 27-31; Exhibit C-169, Attachment 19 to 2010 EEC Report, Summary of Aquatic Species prepared by Ryan Chenery, April-May 2009.

²⁰⁵ Second Hunte Report, p.14.

²⁰⁶ Exhibit C-73, 2010 EEC Report, p. 46. See also Exhibit C-225, Attachment 20 to 2010 EEC Report, University of Florida, Tilapia and Crab Analysis, 30 March 2010.

Claimant's view, would suggest a link to the mismanagement of the Sluice Gate),²⁰⁷ predation²⁰⁸ and distributional changes,²⁰⁹ all of which are theoretically plausible causes for a result that has not been demonstrated. As the burden of proof lies on the Claimant, the Tribunal is unable to conclude that there was a decline or that a possible decline in the fiddler crab population arose from any environmental damage during the Relevant Period, wholly apart from the question of its cause.

(vii) Conclusion

139. In his first witness statement, Mr. Allard stated that the “environmental degradation has been occurring slowly and [was] not always perceived by tourists,” but that “unless Barbados reverses its course of action, [this would] become readily apparent to most visitors.”²¹⁰ The Claimant has not established in these proceedings that the factual premises of this statement are correct. As detailed above, in respect of the six aspects of environmental health identified, namely water salinity, other parameters of water quality, the health of the mangroves, the diversity and health of fish, the diversity and number of birds, and the number of crabs, the Claimant falls short of establishing material deterioration during the Relevant Period, let alone to the extent that would be apparent to one-time visitors. It follows that the Tribunal finds that the Claimant has failed to establish that his decision to cease operating the Sanctuary as an ecotourism attraction arose out of any relevant degradation of the environment at the Sanctuary.

(b) Factual analysis – Causes of the alleged degradation

140. As the Claimant fails to establish that there was a degradation of the identified features of the Sanctuary during the Relevant Period and that, as a consequence of such degradation, he incurred loss or damage, the case falls at the first factual hurdle. Nevertheless, for the sake of completeness, and because the Parties made detailed submissions on the question of whether the alleged environmental degradation was caused by actions or inactions of Barbados, the Tribunal addresses these submissions here.

141. In the course of the arbitration, the Claimant has asserted that the following actions or inactions of Barbados caused the alleged degradation of the environment at the Sanctuary: (i) the failure to

²⁰⁷ Hearing Tr., 14 December 2015, 1020 (examination of Mr. Robert E. Wallace).

²⁰⁸ Second Hunte Report, p. 15.

²⁰⁹ Second Hunte Report, p. 15.

²¹⁰ First Allard Statement, ¶¶ 60-61. *See also* Hearing Tr., 9 December 2015, 310-312 (examination of Mr. Peter A. Allard).

remedy the 2005 spill from the South Coast Sewage Plant;²¹¹ (ii) the Zoning Changes;²¹² and (iii) the mismanagement of the Sluice Gate.²¹³ Each of these alleged causes of environmental degradation is addressed in turn below.

(i) *Sewage spill*

142. In the Claimant’s Statement of Claim, the 2005 sewage spill from the Barbados South Coast Sewage Plant was pleaded as a direct cause of environmental degradation during the Relevant Period, in that it “had immediate negative effects on the Sanctuary’s operations,” which Barbados “never remediated.”²¹⁴ This claim was reformulated during the Hearing in terms that:

the point about the South Coast Sewage Plant is as follows: If there is an emergency discharge from the South Coast Sewage Treatment Plant, that is supposed to go out the canal. If [the] sluice gate is blocked, as it was in 2005, that discharge can flow out of the canal and there will be some damage. Now, there’s a dispute about how much damage there was. The relevance of the incident is as follows. It’s not a claim that there was a spill in 2005, and that we’re claiming for that spill [. . .]. The point is that that spill raised a red flag that made the need to repair the sluice gate urgent. It was a sign of what can happen if the sluice gate was not repaired.²¹⁵

143. Effectively, counsel thereby abandoned the separate head of claim, stating that the Claimant does not identify that any action or inaction of Barbados directly related to the 2005 spill caused the alleged degradation of the environment at the Sanctuary during the Relevant Period. Rather, the Claimant’s closing position is that the 2005 spill illustrates the kind of damage that could be caused to the Sanctuary if the Sluice Gate were not repaired.

144. It follows that the Claimant’s argument in respect of the 2005 spill is subsumed in his claim of alleged mismanagement of the Sluice Gate. Even in that context, the reformulation does not advance the claims as it is directed merely to the possibility of future harm that may (or may not) arise through mismanagement of the Sluice Gate.

145. Further, on its own terms, there is no more than anecdotal evidence of the deleterious effects of the 2005 spill. Mr. Heaslet’s vague testimony regarding the spill’s alleged negative impact²¹⁶ and EEC’s

²¹¹ Statement of Claim, paras. 72-74, 79.

²¹² Statement of Claim, paras. 5, 81-85, 134; Reply, paras. 74-76, 87-90.

²¹³ Statement of Claim, paras. 4, 67, 76, 79, 135; Reply, paras. 6, 40-46, 51-60, 63-69; Hearing Tr., 8 December 2015, 37:5-6, 17-18, 38:7-9 (Claimant’s opening statement).

²¹⁴ Statement of Claim, ¶ 73.

²¹⁵ Hearing Tr., 17 December 2015, 1656:19-1657:8 (Claimant’s closing statement).

²¹⁶ Heaslet Statement, ¶ 32: “The pollution had immediate negative effects on the Sanctuary’s operations. All environmental tours and educational operations were curtailed. In addition to the resulting stress on the ecosystem and its inhabitants, the Sanctuary staff dealt with complain[t]s about the smell and water discoloration.”

most improbable hypothesis that the spill could explain the discovery of dead gastropods at the Sanctuary seven years later in 2010²¹⁷ fail when weighed against the fact that the water quality tests conducted at the instigation of the Barbados Water Authority within days of the spill failed to reveal any environmental damage.²¹⁸

146. It follows that the 2005 sewage spill does not explain any degradation of the environment at the Sanctuary or justify Mr. Allard's later closure of the Sanctuary in 2009.

(ii) *Zoning Changes*

147. The claim is that damage caused by the mismanagement of the Sluice Gate "will be compounded by new residential development that is due to occur" in the area affected by the Zoning Changes.²¹⁹

148. As with the sewage spill, so expressed this head is merely impleaded to support Sluice Gate issues, and does not stand as a separate claim.

149. Somewhat confusingly, the ground arising from the Zoning Changes provided for in the 2003 Plan is maintained as enabling future development that would have been prohibited under the 1986 Plan, and that necessarily will increase the run-off of contaminants into the Sanctuary.²²⁰

150. Although the Respondent disputes that the adoption of the 2003 Plan diminished the environmental protection of the Sanctuary,²²¹ it suffices to reject the claim on the ground that the Claimant has not demonstrated that the adoption of the 2003 Plan has caused any environmental damage to the Sanctuary. The Claimant has established neither that the quality of water at the Sanctuary decreased during the Relevant Period, nor that the flora and fauna of the Sanctuary suffered due to a decrease in water quality during that period.²²² The Claimant has also not shown that any significant previously-prohibited development has been allowed in the vicinity of the Sanctuary after the adoption of the 2003 Plan. Indeed, Mr. Allard confirmed in his examination at the Hearing that the

²¹⁷ Exhibit C-73, 2010 EEC Report, pp. 51-52: "Benthic sampling in February 2010 indicated that some 'sudden disturbance' had killed the gastropods in 8 of 10 locations, a finding consistent with the impact of [a sewage spill]."

²¹⁸ Exhibit R-79, Letter from Hugh Sealy, New Water Incorporated, to Barbados Water Authority, 9 September 2005: ". . . no conclusion can be drawn in relation to the effect of the July [s]ewage spill, except that there was no discernible spatial or temporal impact of the sewage spill based upon the parameters measured."

²¹⁹ Statement of Claim, ¶ 81.

²²⁰ Statement of Claim, ¶¶ 81-83; Hearing Tr., 8 December 2015, 73:13-25 (Claimant's opening statement); Hearing Tr., 18 December 2015, 1534:7-16 (Claimant's closing statement).

²²¹ Rejoinder, ¶¶ 167-173; Hearing Tr., 17 December 2015, 1603:24-1604:7 (Respondent's closing statement).

²²² See paragraphs 104-139 above.

apprehended development has not yet taken place.²²³ Even if the Zoning Changes were to result in new development, there is no proof on the record that it would have the negative effects the Claimant alleges.

151. It follows that the Zoning Changes are untenable as grounds explaining any degradation of the environment at the Sanctuary or justifying closure of the Sanctuary in 2009 either on a stand-alone basis or in support of Sluice Gate issues.

(iii) *The Sluice Gate*

152. The claim is that Barbados' failure to adequately maintain and operate the Sluice Gate to allow the ingress of seawater and the egress of contaminants was the principal cause of the alleged environmental degradation at the Sanctuary.²²⁴
153. Based on the record of this arbitration, the Tribunal concludes that, before the mid-1990s, the Sluice Gate was opened three times per week. However, by 1997–1998, the Sluice Gate was opened less often due to the deterioration of its structure and the accretion of the beach, which required the frequent excavation of a channel between it and the sea.²²⁵ By October 2005, the Sluice Gate had become “inoperable.”²²⁶ It was jammed in a slightly open position, and blocked by an artificial

²²³ Hearing Tr., 9 December 2015, 281-283 (examination of Mr. Allard). *See also* Hearing Tr., 17 December 2015, 1534:20-22 (Claimant's closing statement): “We recognize that the amount of development that has occurred so far is limited, and that is what the record shows.”

²²⁴ Hearing Tr., 8 December 2015, 38:7-9 (Claimant's opening statement): “It's trying to make it appear that any problems at the Sanctuary are due to anything other than the sluice gate.”

²²⁵ Exhibit C-56, First ARA Report, October 1997, pp. 4-4, 5-5:

The sluice gate used to be opened three times per week. [. . .] This schedule has not been regularly adhered to in recent years. In October 1996, responsible Ministries agreed that the sluice gate would be opened twice a week. [. . .] The sluice gate has historically been operated frequently [. . .]. This operational practice has become less and less frequent in recent years due to deterioration of the gate structure [. . .]. In addition, movement of sand along the beach rapidly blocks the canal between the sluice gate and the sea, and the sand buildup requires frequent and extensive excavation to provide proper flow.

Exhibit C-57, Second ARA Report, January 1998, p.11-6:

The channel structure and sluice gate is currently located on the beach well up from the normal high tide level [which] means that a channel must be regularly excavated through the sand to provide discharge flow to the sea. Chronic shortages of equipment or unavailability of equipment often means that the sluice gate is not operated in an acceptable manner [. . .].

²²⁶ Exhibit R-88, Letter from Harry Roberts to the Permanent Secretary of the Ministry of Public Works, 5 October 2005: “The condition of the sluice gate at Worthing beach continues to deteriorate; a portion of one of its supporting concrete columns has broken off and is now lying on the beach . . . the gate is now inoperable”; Exhibit R-71, Minutes of the Graeme Hall Stewardship Committee meeting of 17 October 2005, 4 November 2005: “[The Sluice Gate is] severely damaged”; Exhibit R-89, Letter from Harry Roberts to the Permanent Secretary of the Ministry of Public Works, 24 May 2006: “The present Sluice Gate has . . . been repaired [since January 2004] but is still inoperable”; Exhibit C-72, Draft Master Plan for the Graeme Hall Ecosystem, September 2007, p. 4: “The effective operation of the sluice gate has been compromised by sand secretion and maintenance problems in the

sandbar, which could only be removed by severe storms or manually with the use of heavy machinery.²²⁷ There is evidence that the sandbar was removed by Government workers once in October 2005²²⁸ and again in August 2009.²²⁹ In summary, it appears that the Sluice Gate was opened irregularly between 1997 and 2004, and on no more than a handful of occasions between 2005 and 2009.

154. At paragraph 102 above, the Tribunal found that salinity levels at the Sanctuary decreased from 1986 to 2015 (although there is no conclusive evidence that this change occurred during the Relevant Period). The question is therefore whether this decrease in salinity was caused by the irregular and infrequent operation of the Sluice Gate.
155. It is uncontroversial that the Sluice Gate is presently the sole overland connection between the Graeme Hall Swamp and the sea. The Claimant and his environmental experts submit that the Sluice Gate is accordingly the main (and, possibly, the only) way in which saline water enters the water bodies of the Sanctuary.²³⁰ In contrast, the Respondent argues that “subsurface entry of saline water is by far the most significant way in which salt enters the [Sanctuary] lake.”²³¹ Professor Hunte explains that, even if the Sluice Gate had been regularly operated, it would have been ineffective in determining salinity in the Sanctuary lake, because starting in 1984–1987 the beach on which the Sluice Gate is located became too wide to permit the regular ingress of water.²³²

last few years, and is currently inoperable.” *See also* Hearing Tr., 11 December 2015, 794 (examination of Dr. Lorna Inniss).

²²⁷ Chenery Statement, ¶¶ 9-10:

Due to lack of maintenance, the sluice gate does not function at all and remains closed, which prevents seawater from reaching the swamp [. . .]. [I]n order for a greater volume of water to flow through the sluice gate and into the canal, it is necessary for Government workers to scrape away the sand barrier that blocks the outside and inside of the sluice gate. Removing the sand barrier creates a small gap under the sluice gate for seawater to flow through during high tide;

Hearing Tr., 10 December 2015, 439-443 (examination of Mr. Ryan Chenery); Hearing Tr., 10 December 2015, 637-638 (examination of Mr. Steve Devonish). *See also* Exhibit C-73, 2010 EEC Report, p. 11:

The sluice gate [. . .] has not been operational since 2006, when wooden components rotted to the point of failure [. . .]. Since 2006, the Government of Barbados has attempted to manage wetland water levels and allow flows within the Bisecting Canal by removing sand with a front end loader and backhoe.

²²⁸ Chenery Statement, ¶ 11.

²²⁹ Exhibit C-73, 2010 EEC Report, p. 11.

²³⁰ Reply, ¶ 55-59; Hearing Tr., 17 December 2015, 1434 & ff (Claimant’s closing statement).

²³¹ Hearing Tr., 17 December 2015, 1622:1-2 (Respondent’s closing statement).

²³² Second Hunte Report, p. ii:

Sandy Beach, which separates Graeme Hall [Swamp] from the sea, underwent significant accretion (beach widening) between 1984 and 2003, and its current width is still more than twice the width before the 1984

156. The Tribunal does not exclude that, during the Relevant Period, seawater could reach the Sanctuary lake through the Sluice Gate if the latter was opened under the right conditions. Mr. Chenery and Mr. Heaslet both testified to seeing seawater enter the canal through the Sluice Gate in the period from 2000 to 2009, whether by flowing under the Sluice Gate when it was open or over it when it was closed.²³³ Mr. Chenery also testified to having seen what appeared to be the mixing of seawater with the waters of the lake,²³⁴ and Mr. Wallace provided a plausible explanation for how seawater entering through the Sluice Gate could flow sufficiently far up the canal to mix with the lake waters.²³⁵ It is also clear, however, that, due to the width of the beach during the Relevant Period, seawater did not reach the Sluice Gate on a daily basis. The Claimant submits that seawater could enter the lake during “episodic periods of high tide,”²³⁶ while the Respondent argues that this could only occur during “extreme storm surges.”²³⁷ When the beach was widest,²³⁸ in the mid-1990s, the First and Second ARA Reports noted that “ocean waters could pass into the system” through the Sluice Gate during periods of “sufficiently high tide (primarily meteorological events combined with high astronomical tide),” estimating the frequency of the mixing at five or six times a month.²³⁹

accretion. Since 1984, seawater at high tide has been unable to reach the sluice gate and therefore seawater could not have entered the Sanctuary lake through the sluice gate canal, except perhaps during extreme weather events at times when beach width was narrowest. Operation of the sluice gate would have been ineffective in determining salinity in the Graeme Hall Sanctuary lake since 1984.

See also Hearing Tr., 15 December 2015, 1171-1174 (examination of Professor Wayne Hunte).

²³³ Chenery Statement, ¶¶ 9-11; Hearing Tr., 9 December 2015, 381:7-10 (examination of Mr. Stuart Heaslet).

²³⁴ Chenery Statement, ¶¶ 12-13.

²³⁵ Hearing Tr., 14 December 2015, 858-862 (examination of Mr. Robert E. Wallace).

²³⁶ Hearing Tr., 8 December 2015, 53:13-16 (Claimant’s opening statement): “[T]he argument isn’t that the tide always goes in and out on a daily basis. Rather that there’s episodic periods of high tides and the like that can do that.” *See also* Hearing Tr., 14 December 2015, 860:15-16 (examination of Mr. Robert E. Wallace). “. . . it’s not implausible to me that [the seawater] could reach the lake and enter the lake.”

²³⁷ Hearing Tr., 8 December 2015, 116:3-6 (Respondent’s opening statement): “. . . the ecological paradise that Mr. Allard says he found in the 1990s did not allow water to enter into the lake through the sluice gate except in extreme storm surges.” *See also* Hearing Tr., 15 December 2015, 1167:15-1168:1 (examination of Professor Wayne Hunte):

[. . .] in very rare circumstances of extreme weather events, such as, you know, you might have extreme spring tides that coincide with heavy onshore wave or wind action, that, you know—certainly, a hurricane will give you some storm surge. So, there are situations in which, providing the beach is narrow enough—right?—that additional oceanographic and weather features could get it close to the sluice gate or near the sluice gate, and I’ve said that repeatedly. But those combination of events are going to be very rare.

²³⁸ *See* Second Hunte Report, Appendix C, Graph of beach width measurements taken by the CZMU in the period 1984–2015.

²³⁹ Exhibit C-56, First ARA Report, October 1997, p. 5-1; Exhibit C-57, Second ARA Report, January 1998, p. 11-7.

157. In any event, the question here is not whether, on occasion, seawater would reach the Sanctuary lake through the Sluice Gate, but rather, whether the passage of seawater through the Sluice Gate was a significant component in maintaining the salinity of the Sanctuary lake, such that the irregular and infrequent operation of the Sluice Gate would cause a non-negligible decrease in salinity. In the Tribunal's view, the Claimant has failed to show that this is the case.
158. First, while the Claimant contends that the Respondent and Professor Hunte created the theory that the lake's salinity is maintained through subsurface exchange "solely for the purpose of this arbitration,"²⁴⁰ the Tribunal finds ample support for this theory in documentation pre-dating the commencement of these proceedings:
- (i) The 1987 Cattaneo Report stated that "[s]eawater, no doubt, intrudes into the swamp through the porous bar separating the sea from the lake and swamp area, and this would contribute to the high salinity of the [Sanctuary] lake . . ." ²⁴¹
 - (ii) The 1996 Barbados Water Drainage Study explained that, while the watershed area of the Graeme Hall Swamp has significantly reduced due to the constriction of the highway, "the total inflow of water to the swamp has likely remained fairly constant due to sub-surface flow to the wetland area."²⁴²
 - (iii) The First ARA Report of 1997 stated that "[b]ore holes from Graeme Hall Swamp indicate that as the layer of coral extends outward under the sea, its permeability produces an interface between sea water infiltrating inland and fresh rainwater percolated through coral to the underlying oceanic deposits"²⁴³ and that "Graeme Hall Swamp . . . contains the hydrological attributes necessary to maintain a coastal wetland mangrove ecosystem with . . . adequate saline water from underground sources."²⁴⁴ It also stated that the results of water tests conducted in December 2016 were consistent with the conclusion that "the primary mechanism providing saltwater to the swamp . . . was saltwater intrusion through porous geological formations separating the ocean and the swamp."²⁴⁵

²⁴⁰ Hearing Tr., 17 December 2015, 1433, 1448-1451 (Claimant's closing statement).

²⁴¹ Exhibit C-180, Cattaneo Report, p. 5.

²⁴² Exhibit C-97, 1996 Barbados Stormwater Water Drainage Study, pp. 2-21, 2-22.

²⁴³ Exhibit C-56, First ARA Report, October 1997, 5-1.

²⁴⁴ Exhibit C-56, First ARA Report, October 1997, pp. 6-7, 6-8.

²⁴⁵ Exhibit C-56, First ARA Report, October 1997, pp. 5-8, 5-9.

- (iv) The Claimant's First EMP of 1998 referred to the "upward welling of saltwater into the brackish lake from below."²⁴⁶
159. Professor Hunte was also clearly aware of the function of subsurface exchange before preparing his expert reports in this arbitration. In his comments on the 2010 EEC Report, prepared for Barbados outside of this arbitration,²⁴⁷ Professor Hunte found it "important to note that, in Barbados, most of the inland water that reaches the coastal zone does so as groundwater (underground) discharge rather than overland run-off, and that seawater intrusion inland can also occur underground during high tide."²⁴⁸
160. Second, the Claimant was not able to disprove that subsurface exchange contributes to the salinity of the Sanctuary lake. His environmental experts, Messrs. Wallace and Ries, agreed during the Hearing that there is a subsurface flow of water from the sea to the Sanctuary when the tide is rising²⁴⁹ and that this could, at least theoretically, result in water exchange with the lake.²⁵⁰ Mr. Wallace further indicated that the only way of knowing whether the water that reaches the lake is saline or freshwater is "to drill a hole and test it."²⁵¹
161. Yet the Claimant's environmental experts did not conduct such tests on the Sanctuary grounds. While EEC argued that any subsurface inflow of seawater could not affect the salinity of the lake due to the freshwater lens that typically lies above the area of subsurface saline-freshwater mixing,²⁵² it did not show that such a lens exists under the Sanctuary. In this respect, the Tribunal notes that EEC itself

²⁴⁶ Exhibit C-43, First EMP, p. 6.

²⁴⁷ See Hearing Tr., 15 December 2015, 1129:3-12 (examination of Professor Wayne Hunte).

²⁴⁸ Second Hunte Report, Appendix A, Professor Hunte's Comments on 2010 EEC Report, p. 1 (emphasis added).

²⁴⁹ Hearing Tr., 14 December 2015, 975 (examination of Mr. Robert E. Wallace):

Well, I mean, it says 'it is likely that the inflow to the swamp will remain fairly constant due to subsurface flow.' There is no arguing that, that these—the tides go up and down as they have and will continue to do, and that tide rising forces a wave underground inland. And then as the tide recedes, the wave comes back. [. . .] So, I don't disagree with the statement.

²⁵⁰ Hearing Tr., 14 December 2015, 1046:19-23 (examination of Mr. Thomas F. Ries): "Q. [...] subsurface flow could account for some proportion of water exchange, albeit not a majority? A. That's a fair statement." Hearing Tr., 14 December 2015, 978:14-21 (examination of Mr. Robert E. Wallace):

A. I believe that it's possible that water can come up and enter the lake if the conditions are right, but we haven't seen anything. The latest information from Professor Hunte showed that there was very low brackish water that might enter.

Q. But it is theoretically possible?

A. Yes. If the tide is high enough and the area is dry enough, the freshwater is dry enough, it could do that.

²⁵¹ Hearing Tr., 14 December 2015, 976:11 (examination of Mr. Robert E. Wallace).

²⁵² Second EEC Report, p. 4.

indicated that “the freshwater lens [is] above the saline-freshwater transition at all times except at ground surface adjacent to the ocean seawater”²⁵³ and accepts Professor Hunte’s explanation that “[a]s the sub-surface freshwater (groundwater) approaches the sea, it rises closer to the surface and mixes with the sub-surface seawater, creating the brackish water that exists immediately below the surface at locations such as Graeme Hall [Swamp].”²⁵⁴ In contrast to EEC, Professor Hunte was able to produce the CARICOMP data, which shows, on the basis of salinity measurements taken in bore holes dug at locations adjacent to the Sanctuary lake, that the salinity of the water below ground was consistently higher than the salinity of the lake surface in the period from 2006 to 2015.²⁵⁵

162. Third, while, as noted in paragraph 93 above, the level of salinity of the Sanctuary waters was high in the mid-1980s, the record shows that, in all of the periods when the Sluice Gate was operational, it was primarily used to flush water *out* of the Graeme Hall Swamp and was therefore typically opened at low tide and closed in the presence of the conditions (whether simply high tides or high tides combined with extreme storm events) that might have brought water into the Sanctuary. From 1947 to 1970, the Sanctuary grounds belonged to a gun club,²⁵⁶ which operated the Sluice Gate to maintain constant water levels, presumably, to ensure that the water levels did not exceed those attractive to wading birds. The 2010 EEC Report thus indicates that in those days the Sluice Gate “was opened only at low tide to control the water level in the shooting pools.”²⁵⁷ Other documents indicate that, more recently, the Sluice Gate was typically opened at low tide, either to prevent

²⁵³ Second EEC Report, p. 4 (emphasis added).

²⁵⁴ Second Hunte Report, p. 12.

²⁵⁵ Second Hunte Report, Appendix B and pp. 4-5:

The [CARICOMP Monitoring] Programme not only monitors surface salinity in the lagoon [. . .], but also samples land sites immediately adjacent to the lagoon. Specifically, bore holes are dug in the ground until water is reached and salinity readings are taken of the water sampled. Throughout the Monitoring Programme, salinity values in this sub-surface water have consistently exceeded those in water samples from the lagoon [. . .].

See also Hearing Tr., 15 December 2015, 1212, 1219 (examination of Professor Wayne Hunte).

²⁵⁶ Exhibit C-56, First ARA Report, October 1997, p. 3-2.

²⁵⁷ Exhibit C-73, 2010 EEC Report, p. 8.

flooding²⁵⁸ or to flush out debris.²⁵⁹ It is therefore unlikely that ingress of seawater through the Sluice Gate was a significant component to the maintenance of the salinity levels found in the mid-1980s.

163. Finally, the Tribunal notes that any differences between the Sanctuary and a natural mangrove ecosystem, as well as any general decline in salinity and the predominantly freshwater benthic community found in the Sanctuary lake by EEC, can in all likelihood be explained by the fact that Graeme Hall Swamp, formerly an open estuary, was cut off from the sea with the construction of the coastal road in 1715.²⁶⁰
164. Accordingly, even if the Tribunal had been persuaded that there was a degradation of the environment at the Sanctuary during the Relevant Period consisting of, or due to, a decrease in salinity (which it was not), it could not have concluded that such decrease was caused by the mismanagement of the Sluice Gate.
165. As to the Claimant's submission regarding the accumulation of contaminants in the Sanctuary waters due to the mismanagement of the Sluice Gate, the Tribunal admits the possibility that the prolonged closure of the Sluice Gate may cause a build-up of contaminants and, in particular, of large debris. Professor Hunte recognized during the Hearing that such debris would take time to break down, dissolve and be flushed out subsurface.²⁶¹ However, as indicated in paragraphs 104-111 above, the Claimant has failed to demonstrate that there was an actual deterioration of the water quality at the Sanctuary during the Relevant Period.

²⁵⁸ Exhibit C-97, 1996 Barbados Stormwater Drainage Study, p. 2.22: "The gate is operated on an 'as required' basis in order to drain excess water from the swamp . . . Typically, the gates are opened at low tides . . ."; Exhibit R-41, Letter from Baird & Associates to the CZMU, 5 May 2010: "Baird completed a review of the operation of the [Sluice Gate] in 2004, and found that it was typically operated 10 to 15 times per month, reducing the water level in the impoundment by 100 to 150 mm on each opening" (emphasis added); Exhibit C-56, First ARA Report, p. 4.4: "The sluice gate used to be opened three times per week during low tide periods to allow floodwaters to drain to sea."

²⁵⁹ Exhibit C-97, 1996 Barbados Stormwater Drainage Study, p. 2.22:

Historically, the outlet canal to the sea has frequently silted up and the poor maintenance and operation of the sluice gate lead to stagnation of the water in the swamp [. . .]. However, a major clean-up operation by the Ministry of Transport and Works in the mid 1980's (sic) and the regular operation of the sluice gate at low tides has resulted in better water quality.

²⁶⁰ Exhibit C-97, 1996 Barbados Stormwater Drainage Study, p. 2.23.

²⁶¹ Hearing Tr., 15 December 2015, 1233:12-1234:5 (examination of Professor Wayne Hunte).

(iv) *Conclusion*

166. For these reasons, the Tribunal concludes that, even if it had found that there was a degradation of the environment at the Sanctuary during the Relevant Period (which it did not), it would not have been persuaded that such degradation was caused by any actions or inactions of Barbados.

B. ALLEGED BREACHES OF THE BIT

167. The Tribunal has found that the Claimant's claim fails at its factual threshold as the Claimant has failed to establish any loss or damage to his investment attributable to any actions or inactions of Barbados. Even if the Tribunal were to find that Barbados breached any of its BIT obligations, there would therefore be no loss or damage arising from such breach. However, and having regard to the exhaustive compilation of the Parties' pleadings and the joinder of issue, the Tribunal regards it as appropriate to address the breaches alleged.

168. Accordingly, the Tribunal turns to consider the Claimant's claims of breach by Barbados of various obligations arising under the BIT as noted in paragraph 51 above, namely breaches of the FET and FPS standards, as well as of the obligation not to expropriate the Claimant's investment except in accordance with the conditions set out in the BIT.

1. FET

169. Article II(2) of the BIT relevantly provides:

Each Contracting Party shall accord investments or returns of investors of the other Contracting Party:

(a) fair and equitable treatment in accordance with the principles of International Law [. . .]

(a) The Claimant's position

170. Referring to other earlier investment treaty decisions, the Claimant asserts that Article II(2)(a) of the BIT protects "the investor's reasonable expectations arising from the commitments of the host [S]tate."²⁶² A violation of such expectations occurs "where officials of the Respondent [S]tate have

²⁶² Statement of Claim, ¶¶ 111-114, referring to *Técnicas Medioambientales TECMED SA v. United Mexican States*, ICSID Case No. ARB(AF)/00/2, Award, 29 May 2003, ¶ 154; *CME Czech Republic B.V. v. Czech Republic*, UNCITRAL, Partial Award, 13 September 2001, ¶ 611; *Siemens A.G. v. Argentine Republic*, ICSID Case No. ARB/02/8, Award, 6 February 2007, ¶ 299; *LESI S.p.A. et ASTALDI S.p.A. v. République Algérienne Démocratique et Populaire*, ICSID Case No. ARB/05/3, Award, 12 November 2008, ¶ 151; *Rumeli Telekom A.S. and Telsim Mobil Telekomikasyon Hizmetleri A.S. v. Republic of Kazakhstan*, ICSID Case No. ARB/05/16, Award, 29 July 2008, ¶ 609; *Metalclad Corporation v. United Mexican States*, ICSID Case No. ARB(AF)/97/1, Award,

made representations to the investor that the investor relied upon to his detriment” and amounts to a breach of the FET standard.²⁶³

171. In response to the Respondent’s contention that the FET standard of the BIT corresponds to the minimum standard of treatment of aliens under customary international law and should be interpreted in the same way as Article 1105 of the North American Free Trade Agreement (“NAFTA”),²⁶⁴ the Claimant argues as follows:

- (i) Unlike Article 1105 of the NAFTA, Article II(2)(a) of the BIT does not have a heading that refers to a minimum standard of treatment.²⁶⁵
- (ii) The wording of Article II(2)(a) of the BIT is “very much consistent with the wordings of most [bilateral investment treaties] that contain an autonomous [FET] standard which protects legitimate expectations.”²⁶⁶
- (iii) There is no binding interpretation of Article II(2)(a) of the BIT, as is the case for Article 1105 of the NAFTA.²⁶⁷
- (iv) In any event, the case law interpreting Article 1105 of the NAFTA has “made it clear that customary international law has evolved to protect legitimate expectations.”²⁶⁸

172. The claimed breaches are that Barbados denied Mr. Allard FET by making representations that it would maintain the Sluice Gate and generally “uphold its environmental policies, particularly those that reflected a commitment to conservation and protection of the biodiversity of the Sanctuary,” and then failing to act in accordance with those representations.²⁶⁹

173. Generally, the Claimant relies upon “direct and specific representations”²⁷⁰ constituted by:

30 August 2000, ¶¶ 85-89; *Duke Energy Electroquil Partners and Electroquil S.A. v. Republic of Ecuador*, ICSID Case No. ARB/04/19, Award, 18 August 2008, ¶ 361.

²⁶³ Statement of Claim, ¶ 114.

²⁶⁴ 32 ILM 289, 605 (1993).

²⁶⁵ Hearing Tr., 8 December 2015, 78:24-79:8 (Claimant’s opening statement).

²⁶⁶ Hearing Tr., 8 December 2015, 79:8-14 (Claimant’s opening statement).

²⁶⁷ Hearing Tr., 8 December 2015, 79:15-80:7 (Claimant’s opening statement).

²⁶⁸ Hearing Tr., 8 December 2015, 80:8-13 (Claimant’s opening statement).

²⁶⁹ Claimant’s Skeleton Argument, ¶ 54.

²⁷⁰ Statement of Claim, ¶ 2.

- (i) the 1986 Plan, which declared Barbados' intention to protect Graeme Hall Swamp by developing it as a nature reserve and, according to the Claimant, created a "buffer zone" around it;²⁷¹
- (ii) the 1995 Cummins Letter, in which the Chief Town Planner: (a) referred to the 1986 Plan; (b) noted that Graeme Hall Swamp "is unique in the Barbadian context in that it is the major mangrove wetland on the island and provides habitat for a variety of species" and that it is "one of the last remaining areas of natural wetland in Barbados"; (c) set out Barbados' "very stringent policy on significant environmental issues"; and (d) explained that a comprehensive environmental impact assessment would have to take place before any development could be approved;²⁷²
- (iii) the reply letters dated 1995 and 1996 from various Barbadian ministries, which, according to the Claimant, "explained that they would consider support for the Sanctuary" following completion of the environmental impact assessment;²⁷³
- (iv) the then Deputy Prime Minister's "emphatic assurance" expressed at a meeting with Mr. Allard in November 1996 that "the government wished the rehabilitation of Graeme Hall [Swamp] to continue through a private enterprise";²⁷⁴
- (v) the First and Second ARA Reports, which "provided detailed recommendations regarding the importance of the preservation of the Buffer Zone" and which, "in light of . . . prior representations . . . , it was reasonable for Mr. Allard to expect that the government would follow";²⁷⁵

²⁷¹ Statement of Claim, ¶¶ 26-27, referring to Exhibit C-29, 1986 Plan, ¶¶ 7.6-7.7, 10.35, 10.61, 12.19(x).

²⁷² Statement of Claim, ¶¶ 22-23, 28-29, referring to Exhibit C-27, 1995 Cummins Letter; Reply, ¶ 21. *See also* Hearing Tr., 8 December 2015, 61:11-16 (Claimant's opening statement).

²⁷³ Statement of Claim, ¶ 29, referring to Exhibit C-30, Letter from Peter A. Allard to the Hon. Billie Miller, Deputy Minister of Barbados, and to the Permanent Secretary in the Ministry of Tourism, 19 July 1995; Exhibit C-31, facsimile from Peter A. Allard to the Minister of Tourism, 23 August 1995; Exhibit C-32, Letter from Joseph Ward to the Right Hon. Owen Arthur, Minister of Finance, 26 February 1996; Exhibit C-33, Letter from Peter A. Allard to the Permanent Secretary (Tourism) in the Ministry of Tourism and International Transport, 28 February 1996; Exhibit C-34, Letter from the Permanent Secretary (Economic Affairs) in the Ministry of Financial and Economic Affairs to Joseph Ward, 8 August 1996; Exhibit C-35, Letter from the Permanent Secretary in the Ministry of Foreign Affairs, Tourism and International Transport, 27 September 1996.

²⁷⁴ Statement of Claim, ¶ 30; Reply, ¶ 36, referring to Exhibit C-36, Letter from Peter A. Allard to Hon. Billie Miller, 28 November 1996.

²⁷⁵ Reply, ¶ 85; Statement of Claim, ¶¶ 52-55; Exhibit C-56, First ARA Report, pp. 1-3; Exhibit C-57, Second ARA Report, pp. 11-1, 11-2. *See also*, Hearing Tr., 8 December 2015, 72:14-24 (Claimant's opening statement).

- (vi) the letter dated 22 March 2002 from the Permanent Secretary in the Ministry of Physical Development, stating that he “remain[ed] firmly committed to the principle that the entire Graeme Hall Swamp must be managed as a single ecological unit”,²⁷⁶ and
- (vii) the designation, in the 2003 Plan, of Graeme Hall Swamp as a “National Heritage Conservation Area.”²⁷⁷

174. The claims with respect to the Sluice Gate are complicated in that the Claimant contends that Barbados undertook to maintain and operate it appropriately by and in the terms of the Chief Town Planner’s approval of the Amended EMP, which included comments regarding Barbados’ responsibility for the maintenance and operation of the Sluice Gate.²⁷⁸

175. In this respect, the Claimant first asserts that the control of the Sluice Gate is “inherently a matter of public authority” because it is located on State land and because its operation affects both the Sanctuary and also all other surrounding land,²⁷⁹ and goes on to analyse the approval process of the Sanctuary project, as it relates to the question of the management and operation of the Sluice Gate, to construct the claimed undertaking from the following circumstances:

- (i) In the First EMP, GHNSI warned Barbados that the Sluice Gate was a “man-made aberration, which had seriously frustrated the natural functions of the swamp”²⁸⁰ and stated:

in principle and without prejudice, [GHNSI] is prepared in the long term to assume responsibility for the efficient and regular operation of the sluice gate [. . .]. In the short term, however, the area of the sluice gate is the property of the Government of Barbados. Seen from a legal perspective, including that of responsibility in case of accident or mishap, [GHNSI] does not have the authority to intervene in the operation of the sluice gate, and indeed it would be trespassing should it attempt to do so.²⁸¹

- (ii) In its Amended EMP, GHNSI similarly offered to cooperate with Barbados, while emphasizing that the latter would “retain ultimate responsibility for sluice gate

²⁷⁶ Statement of Claim, ¶ 32, referring to Exhibit C-63, Letter from The Permanent Secretary (Environment) in the Ministry of Physical Development and Environment to Roger Sweeney, 22 March 2002; Reply, ¶¶ 37-38.

²⁷⁷ Statement of Claim, ¶ 57, referring to Exhibit C-58, 2003 Plan, p. 4-4.

²⁷⁸ Reply, ¶ 94.

²⁷⁹ Reply, ¶ 19; Statement of Claim, ¶ 39. *See also* Hearing Tr., 8 December 2015, 57:10-20 (Claimant’s opening statement).

²⁸⁰ Statement of Claim, ¶ 40, *quoting* Exhibit C-43, First EMP, p. 18, s. 3.4.

²⁸¹ Reply, ¶ 23, referring to Exhibit C-43, First EMP.

management.”²⁸² The Amended EMP also indicated that Barbados’ “drainage study condition” for the project was fulfilled through the 1996 Barbados Stormwater Drainage Study.²⁸³

- (iii) Barbados gave its unconditional approval to the Amended EMP, including its proposals regarding drainage and responsibility for the Sluice Gate, through letters dated 12 September and 27 November 2000 from the Town and Country Planning Office.²⁸⁴ The 12 September letter indicated that, “subsequent to the approval of the drainage and storm water management plan . . . , the relevant conditions attached to the granting of the planning permission may be deemed to have been satisfactorily discharged.”²⁸⁵ The 27 November letter confirmed the satisfaction of all conditions.²⁸⁶ GHNSI accordingly reported in a letter dated 19 March 2001 to the Chief Town Planner that it had “adequately fulfilled the obligations for planning permission that related to drainage and storm water management”²⁸⁷ and the Chief Town Planner did not dispute this at the time.²⁸⁸
- (iv) Prior to issuing his approval, the Chief Town Planner also consulted the Coastal Zone Management Unit of the Ministry of the Environment (“CZMU”), which reported, in a memorandum dated 16 June 2000, that “it is the government’s responsibility to ensure acceptable water quality.”²⁸⁹

176. The Claimant draws these circumstances together to claim that he had a legitimate and reasonable expectation within the FET obligation that Barbados would adequately maintain and operate the Sluice Gate, and keep the “buffer zone” around the Graeme Hall Swamp “regardless of other amendments that might be introduced in a future version” of the 1986 Plan.²⁹⁰ He asserts that the public hearings that took place before the release of the formal 2003 Plan “gave no indication of the elimination of the [“buffer zone”].”²⁹¹

²⁸² Reply, ¶¶ 24-25, referring to Exhibit C-44, Amended EMP.

²⁸³ Reply, ¶ 25, referring to Exhibit C-44, Amended EMP. *See also* Exhibit C-97, 1996 Barbados Stormwater Drainage Study; Hearing Tr., 8 December 2015, 62:5-14 (Claimant’s opening statement).

²⁸⁴ Reply, ¶¶ 26-31.

²⁸⁵ Reply, ¶ 27, *quoting* Exhibit C-39.

²⁸⁶ Reply, ¶ 28, referring to Exhibit C-40.

²⁸⁷ Reply, ¶ 33, referring to Exhibit C-172.

²⁸⁸ Hearing Tr., 10 December 2015, 584:25-585:12 (examination of Mr. Mark Cummins).

²⁸⁹ Statement of Claim, ¶¶ 44-45, *quoting* Exhibit C-47.

²⁹⁰ Reply, ¶ 81.

²⁹¹ Reply, ¶ 83, referring to Exhibit C-176.

177. The Claimant invokes also Article 31(3)(c) of the *Vienna Convention on the Law of Treaties*,²⁹² which provides that in the interpretation of a treaty “there shall be taken into account, together with the context . . . any relevant rules of international law applicable in the relation between the parties.” The Claimant argues that, in “interpreting the scope of the standards of treatment,” the Tribunal should consider “the obligations with respect to the Sanctuary that Barbados assumed in its environmental treaties.”²⁹³ The Claimant emphasizes that he does not allege a breach of any treaties other than the BIT, but argues that Barbados’ environmental treaty obligations “confirm the reasonableness of . . . Mr. Allard’s expectations that are protected under the FET standard.”²⁹⁴
178. Specifically, the Claimant refers to Barbados’ obligations under the United Nations *Convention on Biological Diversity*²⁹⁵ and the *Ramsar Convention*,²⁹⁶ in accordance with which Barbados designated Graeme Hall Swamp as a “wetland of international importance.”²⁹⁷
179. Finally, the Claimant submits that he exercised due diligence in carrying out his investment.²⁹⁸

(b) The Respondent’s position

180. The Respondent submits that the FET standard in Article II(2)(a) of the BIT is not a “bare treaty standard,” but rather corresponds to the minimum standard of treatment of aliens under customary international law.²⁹⁹ The NAFTA Note of Interpretation states that the concept of FET under Article 1105(1) of the NAFTA does “not require treatment in addition to or beyond that which is required by the customary international law minimum standard of treatment of aliens,” and Article II(2)(a) of the BIT is materially identical to Article 1105(1) of the NAFTA and should be understood in the same way.³⁰⁰

²⁹² 1155 UNTS 331.

²⁹³ Statement of Claim, ¶ 123.

²⁹⁴ Statement of Claim, ¶ 124.

²⁹⁵ 5 June 1992, 1760 UNTS 79.

²⁹⁶ 2 February 1971, 996 UNTS 245. As amended by the Paris Protocol, 3 December 1982, and Regina Amendments, 28 May 1987.

²⁹⁷ Statement of Claim, ¶¶ 124-132. *See also* Hearing Tr., 8 December 2015, 58:9-22 (Claimant’s opening statement).

²⁹⁸ Reply, ¶ 93. *See also* Hearing Tr., 8 December 2015, 42:16-44:7 (Claimant’s opening statement).

²⁹⁹ Rejoinder, ¶ 250.

³⁰⁰ Rejoinder, ¶¶ 251-253, referring to NAFTA Free Trade Commission, Notes of Interpretation to Certain Chapter 11 Provisions, 31 July 2001. *See also* Hearing Tr., 17 December 2015, 1624:21-25; 1625:8-16; 1625:22-1626:2 (Respondent’s closing statement).

181. The customary international law obligation to provide FET has a “very high threshold” that relegates “legitimate expectations” to a secondary role.³⁰¹ Although the subjective expectations of the investor may be taken into account in assessing whether there has been a breach of the State’s obligation to refrain from unfair and inequitable treatment, such expectations “are not in themselves a source of obligations.”³⁰² It follows that if a Claimant (as here) alleges no breach of the FET standard apart from his claim “concerning an alleged breach of his ‘expectation,’” his claim under Article II(2)(a) of the BIT must fail.³⁰³
182. Given its status as customary international law, the scope of the FET standard cannot be expanded in the absence of consistent State practice and *opinio juris*. Here, the Claimant has provided no evidence that States have accepted as their legal obligation the expansive notion of “legitimate expectations” espoused by the *ad hoc* investment tribunals that he cites.³⁰⁴
183. Whether arising under customary international law or a “bare” treaty standard, to give rise to a violation of “legitimate expectations”, a representation must be all of:
- (i) clear and explicit;
 - (ii) made by a State official of sufficient authority, such as to generate reasonable reliance by the investor;
 - (iii) made in order to induce the investment;
 - (iv) have been relied upon by the investor to make the investment; and
 - (v) subsequently be repudiated by the State.³⁰⁵

³⁰¹ Rejoinder, ¶¶ 255-256, referring to *Waste Management Inc. v. United Mexican States*, ICSID Case No. ARB (AF)/00/3, Award, 30 April 2004, ¶ 98.

³⁰² Rejoinder, ¶ 256, referring to *MTD Equity Sdn. Bhd. and MTD Chile S.A. v. Republic of Chile*, ICSID Case No. ARB/01/7, Decision on Annulment, 21 March 2007, ¶ 67: “The obligations of the host State towards foreign investors derive from the terms of the applicable investment treaty and not from any set of expectations investors may have or claim to have.” *See also* Hearing Tr., 17 December 2015, 1626:3-12 (Respondent’s closing statement).

³⁰³ Rejoinder, ¶ 257.

³⁰⁴ Rejoinder, ¶ 261; *see also*, ¶¶ 258-260.

³⁰⁵ Rejoinder, ¶ 269, referring to *Glamis Gold v. United States of America*, UNCITRAL, Award, 8 June 2009, ¶ 766; *Duke Energy Electroquil Partners & Electroquil S.A. v. Republic of Ecuador*, ICSID Case No. ARB/04/19, Award, 18 August 2008, ¶ 359; *EDF (Services) Limited v. Romania*, ICSID Case No. ARB/05/13, Award, 8 October 2009, ¶ 217. *See also* Hearing Tr., 17 December 2015, 1626:19-1627:2, referring to *Mobil Investments Canada Inc. & Murphy Oil Corporation. v. Canada* and *Glamis Gold v. United States of America*; 1627:22-1628:3, referring to *Duke Energy Electroquil Partners & Electroquil S.A. v. Republic of Ecuador*; 1628:21-1629:11 (Respondent’s closing statement).

184. The Claimant has not been able to identify any such representations.
185. Further, all of the alleged representations and circumstances giving rise to a legitimate expectation, with the exception of the 1986 Plan, carry the “chronological flaw” that each of them post-dates Mr. Allard’s decision to invest.³⁰⁶ On the Claimant’s own account, he committed to invest in 1994, made his first offer for the acquisition of the Sanctuary in February 1995, and purchased a material part of the Sanctuary lands in 1996.³⁰⁷
186. In any event, as to these so-called “representations”:
- (i) the 1986 Plan was a “flexible policy tool” requiring revision every five years due to the “dynamic nature of the planning process” and containing “no guarantee that the Respondent would freeze land designations . . . forever,” while the 2003 Plan was adopted in an “open, inclusive and transparent manner” and, in any event, did not reduce the overall protection of the Sanctuary (as to which, see paragraphs 77–78 above);³⁰⁸
 - (ii) the 1995 Cummins Letter contained a “general policy statement regarding the Chief Town Planner’s approach to zoning in environmentally sensitive areas,” but no “specific representations regarding actions the Respondent might take with regard to environmental management of the [Sanctuary], over which the Chief Planner in any event had no authority”;³⁰⁹
 - (iii) the correspondence between the Parties of 1995 and 1996 merely construes a “pattern whereby the Claimant would send self-serving letters to the Respondent’s public officials” setting out his demands, requests and wishes, without being encouraged by the Respondent;³¹⁰
 - (iv) there is no documentary support for the allegation that the then Deputy Prime Minister gave the Claimant any kind of assurances, the only letter cited in support having been penned by the Claimant himself;³¹¹

³⁰⁶ Rejoinder, ¶ 270; *see also* ¶ 120.

³⁰⁷ Rejoinder, ¶ 270; Hearing Tr., 8 December 2015, 125:14-22 (Respondent’s opening statement).

³⁰⁸ Rejoinder, ¶¶ 121, 271(a). *See also* Counter-Memorial, ¶¶ 54-55, 83, 84.

³⁰⁹ Rejoinder, ¶¶ 128-131, 271(b). *See also* Counter-Memorial, ¶¶ 50-51; Hearing Tr., 17 December 2015, 1592:22-1593:14 (Respondent’s closing statement).

³¹⁰ Rejoinder, ¶¶ 124-142.

³¹¹ Counter-Memorial, ¶¶ 46-47; Rejoinder, ¶¶ 143, 271(c).

- (v) the First and Second ARA Reports cannot be assimilated with the Respondent's official policies as they were produced by independent consultants and contained only non-binding recommendations;³¹²
 - (vi) any statements made in the First and Amended EMPs "cannot in any way constitute a representation by the Respondent for specific performance"; following the Claimant's logic, a State would be "obligated to refute every assertion of rights in any document or correspondence, or become bound by such unilateral claims;"³¹³ and
 - (vii) the 21 March 2002 letter from the Permanent Secretary in the Ministry of Physical Development and the Environment specifically stated that the details of the Claimant's proposal fell outside the Permanent Secretary's remit and that any remarks he offered "must simply be construed as general observations."³¹⁴
187. As to the events giving rise to the claim of representation regarding the management and operation of the Sluice Gate, the permission initially granted to the Claimant to develop the Sanctuary was subject to the condition that he submit an EMP including a "comprehensive drainage plan of the swamp including the sluice gate."³¹⁵ The Claimant never submitted such a plan, and the Chief Town Planner never approved the part of the EMP concerning the Sluice Gate.³¹⁶ In the letter of 12 September 2000 referred to by the Claimant, the Chief Town Planner informed the Claimant that the drainage management plan was an outstanding issue³¹⁷ and, in his letter of 27 November 2000, re-iterated the drainage plan requirement, granting the Claimant only a "partial planning permission in relation to a number of minor chattels on the Sanctuary's premises."³¹⁸ Having failed to comply with his obligations, the Claimant cannot now claim loss arising from the inoperability of the Sluice Gate as attributable to the Respondent.³¹⁹

³¹² Counter-Memorial, ¶¶ 58-60; Rejoinder, ¶¶ 144, 271(d).

³¹³ Rejoinder, ¶ 271(e).

³¹⁴ Counter-Memorial, ¶ 48, *quoting* Exhibit C-63.

³¹⁵ Counter-Memorial, ¶ 30, *quoting* Exhibit C-37, Letter from the Town & Country Development Planning Office, 27 March 1998, p. 3. *See also* Hearing Tr., 8 December 2015, 126:3-12 (Respondent's opening statement).

³¹⁶ Counter-Memorial, ¶¶ 31-34, 36-37, referring to the First Cummins Statement, ¶ 39. *See also* Hearing Tr., 8 December 2015, 131:13-19 (Respondent's opening statement).

³¹⁷ Counter-Memorial, ¶ 35, referring to Exhibit C-39. *See also* Hearing Tr., 10 December 2015, 586:22-25 (examination of Mr. Mark Cummins)

³¹⁸ Counter-Memorial, ¶ 36, referring to Exhibit C-40.

³¹⁹ Counter-Memorial, ¶¶ 29, 117.

188. Moreover, as noted in Mr. Cummins' witness statement, management of the Sluice Gate was "a complicated issue calling for consideration of a multitude of divergent interests,"³²⁰ where efficient management could only be achieved with "the full cooperation of all the parties involved."³²¹
189. In summary, the Respondent contends that the correspondence between the Parties establishes an unbridged gap between Mr. Allard's expectations and reality, as he repeatedly sought, yet failed to receive, the "kind of assurances and guarantees from the Respondent that he may have hoped would underwrite his project."³²²
190. With respect to the Claimant's reliance on the *Convention on Biological Diversity* and the *Ramsar Convention*, the Respondent contends that:
- (i) the Tribunal does not have jurisdiction to consider alleged breaches of these treaties;
 - (ii) the Tribunal should apply the rule explicitly stated in Article 1105(1) of the NAFTA and in all of Canada's recent bilateral investment treaties that a breach of any other treaty does not amount to a breach of the FET standard;
 - (iii) Barbados ratified the *Ramsar Convention* in 2006, long after Mr. Allard made his investment; and that,
 - (iv) in any event, Barbados has complied with its obligations under these treaties.³²³
191. Finally, the Respondent submits that the investor's "legitimate expectations" must be assessed in light of his obligation to exercise due diligence at the time of making his investment,³²⁴ arguing that in the present case the Claimant acquired the Sanctuary without so doing.³²⁵ Thus, Mr. Allard bought the Sanctuary "impulsively" (as in the "let's do it" statement to Mr. Watson), without conducting any environmental study.³²⁶ His First and Amended EMPs lacked scientific rigor.³²⁷ Additionally, Mr. Allard failed to undertake any sustained scientific study of the site in subsequent years, except

³²⁰ Counter-Memorial, ¶ 38, quoting First Cummins Statement, ¶ 39. See also Rejoinder, ¶ 67, referring to Exhibit C-43, First EMP, p. 18; Exhibit C-56, First ARA Report, p. 2-2.

³²¹ Counter-Memorial, ¶ 38, quoting First Cummins Statement, ¶ 39.

³²² Rejoinder, ¶¶ 146, 272.

³²³ Rejoinder, ¶¶ 274-284. See also Counter-Memorial, ¶¶ 87-89.

³²⁴ Counter-Memorial, ¶ 74, referring to *Parkerings-Compagniet AS v. Lithuania*, ICSID Case No. ARB/05/8, Award, 11 September 2007, ¶ 333.

³²⁵ Rejoinder, ¶ 89. See also Hearing Tr., 8 December 2015, 91:4-92:12 (Respondent's opening statement).

³²⁶ Rejoinder, ¶ 90, referring to Watson Statement, ¶ 20.

³²⁷ Rejoinder, ¶¶ 95-101.

for the 2001–2003 Monitoring Programme, which he conducted “reluctantly” and at the behest of the Respondent.³²⁸

(c) The Tribunal’s analysis

192. In the Tribunal’s view, the question the Respondent has raised of whether the FET standard contained in Article II(2)(a) of the BIT constitutes an autonomous treaty standard having its own content or corresponds to the minimum standard of treatment of aliens under customary international law³²⁹ is not material for the outcome of the case.
193. This is because the entire claim under Article II(2)(a) is based on the notion that the FET standard protects an investor’s legitimate expectations arising from representations made by the host State. Whether Article II(2)(a) creates an autonomous FET standard or corresponds to the minimum standard of treatment, in each case it includes the protection of an investor’s legitimate expectations arising from a host State’s representations, under certain conditions.
194. Assuming that Mr. Allard’s construction of Article II(2)(a) is correct, three factual cumulative conditions present themselves: (i) was there a specific representation?; (ii) did the investor rely on it, *i.e.*, was it critical to his making of the investment?; and (iii) was the investor’s reliance reasonable? The Tribunal examines the first two of these three questions below; as will be seen, in this case there is no need to examine the third.

(i) Whether Barbados made any specific representations

195. The representations of Barbados relied upon by the Claimant fall into the two broad categories of:
- (1) representations by which Barbados allegedly undertook to generally protect the environment at the Sanctuary; and
 - (2) representations by which Barbados allegedly undertook to manage the Sluice Gate.
196. *As to (1), representations regarding general environmental protection:* The Claimant’s claims are based on representations made by Barbados purportedly giving rise to reasonable expectations that Barbados would “uphold its environmental policies, particularly those that reflected a commitment to conservation and protection of the biodiversity of the Sanctuary.”³³⁰ In particular, Mr. Allard

³²⁸ Rejoinder, ¶¶ 102-106, referring to Inniss Statement, ¶¶ 8-12.

³²⁹ Rejoinder, ¶¶ 251-253; Hearing Tr., 17 December 2015, 1624:21-25; 1625:8-16; 1625:22-1626:2 (Respondent’s closing statement).

³³⁰ Claimant’s Skeleton Argument, ¶ 54.

asserts that he reasonably expected that the Respondent would not eliminate the “buffer zone” existing under the 1986 Plan.³³¹

197. The Claimant invokes the specific and direct representations of Barbados on which he bases these expectations as comprising:

- (i) the 1986 Plan;
- (ii) the 1995 Cummins Letter;
- (iii) a series of events that occurred in 1996, *i.e.*, a reply letter from the Barbados Ministry of Finance and Economic Affairs and the then Deputy Prime Minister’s statements during a meeting;
- (iv) the First and Second ARA Reports of 1997 and 1998; and
- (v) a letter from the Permanent Secretary in the Ministry of Physical Development of 2002.³³²

198. The Claimant adds that Barbados’ environmental treaty obligations confirmed and reinforced the specific representations made by Barbados to Mr. Allard.³³³

199. On this issue, the Tribunal concludes to the contrary. On a fair reading, none of the statements relied upon by the Claimant are amenable to characterisation as a specific representation capable of creating a legitimate expectation on the part of Mr. Allard that Barbados would take any specific steps with regard to the environmental protection of the Sanctuary. The terms and context of these statements do not suffice to support the expression of an intention to create an obligation for the State. Nor is each reasonably amenable to be interpreted by an investor to create such an obligation.

200. Plainly, the 1986 Plan was a general expression of Barbados’ policy with respect to the patterning of land use and physical development on the island, including an “intention to protect areas of special vegetation including . . . Graeme Hall [Swamp].”³³⁴ It “designate[d] Graeme Hall Swamp as an area for major recreational activity and/or open space,”³³⁵ but did not express any position that Barbados’ general policy of protection of areas of special vegetation would always be achieved through this designation. The 1986 Plan, in itself, was insufficiently specific to give rise to any legitimate expectation that its land designation would not be amended. As a matter of general approach, such

³³¹ Reply, ¶ 81.

³³² See paragraph 173 above.

³³³ Statement of Claim, ¶¶ 123-124, referring to the *Convention on Biological Diversity* and the *Ramsar Convention*.

³³⁴ Exhibit C-29, 1986 Plan, ¶ 7.7.

³³⁵ Exhibit C-27, 1995 Cummins Letter, ¶ 4.

planning regulations of an administrative nature are not shielded from subsequent changes under domestic law.³³⁶ But the critical point is that the Claimant is unable to point to any other specific statement by Barbados to the effect that the 1986 Plan would not be amended at all or in its part material to the environmental protection of Graeme Hall Swamp.³³⁷ The 1986 Plan was brought to the attention of the Claimant by the 1995 Cummins Letter for information purposes only, without containing any commitments.³³⁸

201. The 1995 Cummins Letter was itself merely a reply by the Chief Town Planner to a proposed plan for the Sanctuary project, in which Mr. Allard requested Barbados' assurance that it would grant him certain permits, tax breaks, land leases and the lease of the Sluice Gate, allowing him to open it "twice daily."³³⁹ Mr. Allard asked Barbados to give its "general agreement to cooperate with correct ecological management of interconnecting waterways and lands between Graeme Hall and Government lands."³⁴⁰ In response, Mr. Cummins made it clear that he could not address at that stage the Claimant's specific investment plan, as it was "difficult to comment on the proposal as submitted."³⁴¹ Most certainly, he did not give any of the assurances requested by the Claimant. Rather, he clearly stated that his purpose was "to highlight the environmental importance of the Graeme Hall Swamp."³⁴²

³³⁶ *Parkerings-Compagniet AS v. Republic of Lithuania*, ICSID Case No. ARB/05/8, Award, 11 September 2007, ¶¶ 327-338; *BG Group Plc. v. The Republic of Argentina*, UNCITRAL, Final Award, 24 December 2007, ¶¶ 292-310; *Plama Consortium Limited v. Republic of Bulgaria*, ICSID Case No. ARB/03/24, Award, 27 August 2008, ¶ 219; *EDF (Services) Limited v. Romania*, ICSID Case No. ARB/05/13, Award, 8 October 2009, ¶ 217; *Sergei Paushok and others v. The Government of Mongolia*, UNCITRAL, Award, 28 April 2011, ¶ 302; *Total S.A. v. Argentine Republic*, ICSID Case No. ARB/04/1, Decision on Liability, 27 December 2010, ¶ 122; *Impregilo S.p.A. v. Argentine Republic*, ICSID Case No. ARB/07/17, Award, 21 June 2011, ¶¶ 290-291.

³³⁷ Hearing Tr., 9 December 2015, 275:1-278:6 (examination of Mr. Peter A. Allard); Hearing Tr., 17 December 2015, 1466:25-1467:11 (Claimant's closing statement).

³³⁸ Exhibit C-27, 1995 Cummins Letter, 18 July 1995, ¶¶ 3-4:

It is difficult to comment on the proposal as submitted, however, an attempt will be made to highlight the environmental importance of the Graeme Hall Swamp [. . .] The Barbados Physical Development Plan (1986) designates the Graeme Hall Swamp as an area for major recreational activity and/or open space. Passive recreational activity is envisaged so as not to harm the existing flora and fauna.

³³⁹ See Exhibit C-26, Letter from Philip W. Moseley to the Chief Town Planner, 6 March 1995, attaching Exhibit C-21, Graeme Hall Lake – An Eco-Tourist Development Proposal by Ruby Sea Investments Ltd., 18 February 1995.

³⁴⁰ Exhibit C-21, Graeme Hall Lake – An Eco-Tourist Development Proposal by Ruby Sea Investments Ltd., 18 February 1995, p. 4.

³⁴¹ Exhibit C-27, 1995 Cummins Letter, ¶ 3.

³⁴² Exhibit C-27, 1995 Cummins Letter, ¶ 3.

202. Additionally, the 1995 Cummins Letter informed the Claimant that “the proposed development require[d] formal planning permission”³⁴³ and that “a formal application to the Planning Office [was] required along with a comprehensive Environmental Impact Assessment highlighting the assets of the development, areas of concern, the issues to be addressed and an environmental management plan for the wetland.”³⁴⁴
203. A similar statement was made in the letter dated 8 August 1996 from the Ministry of Finance and Economic Affairs replying to the same proposal. The Ministry stated that “the Minister of Finance and Economic Affairs has deferred making a decision in respect of the proposed Graeme Hall Bird Sanctuary until a now imminent Environmental Impact Assessment has been completed.”³⁴⁵ Thus, the 1995 Cummins Letter and the 1996 letter from the Ministry of Finance and Economic Affairs both served to highlight Mr. Allard’s, as opposed to Barbados’, obligations regarding the environmental aspects of the planned investment.
204. With regard to the “emphatic assurance” by the former Deputy Prime Minister of Foreign Affairs and Tourism during a meeting in November 1996, even if it is accepted as having been given based solely on a letter written by the Claimant himself, it is insufficiently specific to give rise to legitimate expectations with regard to environmental protection of the Sanctuary.³⁴⁶
205. Further, neither the First nor Second ARA Reports could be reasonably understood by the Claimant as giving rise to obligations on the part of Barbados. They were produced by “a firm of consultants” hired by Barbados to prepare a “[s]tudy includ[ing] an examination of the feasibility of, and recommendations for, appropriate arrangement for operating a proposed Reserve at Graeme Hall as a tourism attraction.”³⁴⁷ The study’s only relevance to the Claimant’s project was that the

³⁴³ Exhibit C-27, 1995 Cummins Letter, ¶ 2.

³⁴⁴ Exhibit C-27, 1995 Cummins Letter, ¶ 7.

³⁴⁵ Exhibit C-34, Letter from the Permanent Secretary (Economic Affairs) in the Ministry of Financial and Economic Affairs to Joseph Ward, 8 August 1996.

³⁴⁶ Exhibit C-36, Letter from Peter A. Allard to Hon. Billie Miller, 28 November 1996:

I am comforted by your emphatic assurance that yourself personally and the government of Barbados wish the project to continue under the auspices of private enterprise [. . .]. We are both agreed that once successfully completed, the project will create a major addition to Barbados already established list of attractions [. . .]. I appreciate your or Mr. Weeks comments that we will be allowed to carry this out without unreasonable restrictions imposed on us other than in the general context of our main themes of preservation, rehabilitation and sustainability.

³⁴⁷ Exhibit C-34, Letter from the Permanent Secretary (Economic Affairs) in the Ministry of Financial and Economic Affairs to Joseph Ward, 8 August 1996. *See also* Exhibit C-35, Letter from the Permanent Secretary in the Ministry of Foreign Affairs, Tourism and International Transport, 27 September 1996.

“Government w[ould] be better able to make informed decisions regarding requested concessions for developments at Graeme Hall.”³⁴⁸

206. External consultants charged with producing a recommendation for the State are not an organ of the State as an entity exercising elements of governmental authority. Accordingly, any representations made in the First and Second ARA Reports cannot be attributed to Barbados. Nor did Barbados represent to Mr. Allard that it would follow the recommendations set out in these reports: it simply informed to “whom it may concern” that “the Ministry of Tourism [contracted] the services of [ARA] to carry out a feasibility study.”³⁴⁹
207. Likewise, any statement made by the Permanent Secretary of the Ministry of Physical Development and Environment in his letter dated 22 March 2003, cannot be perceived as a specific representation attributable to the Government of Barbados. The Permanent Secretary unequivocally stated that the letter’s subject fell “outside [his] immediate remit,” and that, therefore, “any remarks [he] offer[ed] must simply be construed as general observations.” He never induced the Claimant to believe that he was acting on behalf of Barbados, and clarified that all statements were based on “[his] own view.”³⁵⁰
208. Having found no direct and specific representation capable of giving rise to legitimate expectations on the part of Mr. Allard regarding the environmental protection of the Sanctuary generally, the Tribunal need not address the question of whether Barbados’ international obligations arising from its environmental treaties confirmed or reinforced the legitimacy of the Claimant’s expectations.
209. *Representations regarding the Sluice Gate:* Without regard to whether the Sluice Gate was the *causa causans* of the salinity problem (if there was one), the claim is that Barbados made specific and direct representations that it undertook to manage the Sluice Gate. As discussed above, the Claimant’s complaint is that Barbados then failed to adequately maintain and operate the Sluice Gate to allow ingress and egress of water from and to the sea, failing in particular to operate the Sluice Gate in a way that would allow contaminants to be flushed from and seawater to enter the Sanctuary.
210. The fact that the Sluice Gate is located on land that is the property of the State at the end of a canal leading from the Sanctuary,³⁵¹ suffices for the Tribunal to infer that maintenance and operation is the

³⁴⁸ Exhibit C-34, Letter from the Permanent Secretary (Economic Affairs) in the Ministry of Financial and Economic Affairs to Joseph Ward, 8 August 1996.

³⁴⁹ Exhibit C-35, Letter from the Permanent Secretary in the Ministry of Foreign Affairs, Tourism and International Transport, 27 September 1996.

³⁵⁰ Exhibit C-63, Letter from the Permanent Secretary (Environment) in the Ministry of Physical Development and Environment to Roger Sweeney, 22 March 2002, p. 1.

³⁵¹ Exhibit C-56, First ARA Report, pp. 3-1, 3-2,4-2,4-3; Exhibit C-57, Second ARA Report, pp. 2-22; 2-25; Exhibit C-97, 1996 Barbados Stormwater Drainage Study, pp. 2-25, 2-26; Hearing Tr., 10 December 2015, 467:12-18

responsibility of the State. The question with respect to the application of the FET standard, however, is whether Mr. Allard had a legitimate expectation that Barbados would operate the Sluice Gate in any particular way, for example to facilitate the flushing of fresh water or the ingress of seawater.

211. According to the Claimant, Barbados committed to manage the Sluice Gate by its approval of the Amended EMP, which stated that:

- (i) “the Government of Barbados would retain ultimate responsibility for sluice gate management”;
- (ii) “[t]he need for a comprehensive drainage plan” was “in most respects, . . . fulfilled by [the 1996 Barbados Stormwater Drainage Study];” and that
- (iii) “it is clearly governments [sic] responsibility to undertake the work outlined in the drainage report.”³⁵²

212. Barbados appears to have approved the Amended EMP in its entirety, including in its part concerning the drainage plan. By letter of 12 September 2000, the Chief Town Planner granted a conditional approval of the Amended EMP, subject to “the approval of the drainage and storm water management plan” by the Ministry of Public Works and Transport.³⁵³ At that time, the Claimant was fully aware that the “matters relating to drainage and engineering works [were] the only outstanding issue”³⁵⁴ and that he needed to undertake a series of further steps pursuant to comments made by the Ministry of Public Works and Transport on 27 November 2000.³⁵⁵ By letter dated 19 March 2001, the Claimant reported to the Chief Town Planner that he had “adequately fulfilled the obligations for planning permission that related to drainage and storm water management.”³⁵⁶ The Chief Town Planner did not reply to this letter or in any other way inform the Claimant that permission to his project was not granted. Nor did the Town & Country Development Planning Office send Mr. Allard a warning notice once he started building on the Sanctuary grounds as it had previously done when

(examination of Mr. Ryan Chenery); Hearing Tr., 10 December 2015, 565:23-566:15 (examination of Mr. Mark Cummins).

³⁵² Reply, ¶ 25, referring to Exhibit C-44, Amended EMP. *See also* Exhibit C-44, Amended EMP, Appendix A in particular, where the Claimant analysed in detail the 1996 Barbados Stormwater Drainage Study (Exhibit C-97).

³⁵³ Exhibit C-39, Letter from the Town & Country Development Planning Office to Roger Sweeney, 12 September 2000.

³⁵⁴ Exhibit C-39, Letter from the Town & Country Development Planning Office to Roger Sweeney, 12 September 2000.

³⁵⁵ Exhibit C-40, Letter from the Town & Country Development Planning Office to Roger Sweeney, 27 November 2000.

³⁵⁶ Exhibit C-172, Letter from GHNSI to the Chief Town Planner, 19 March 2001.

Mr. Allard had started construction works without prior approval.³⁵⁷ Not having objected at any time since, the Respondent cannot now contend that the planning permission was not granted to the Claimant's project.

213. However, in the Tribunal's view, the approval of the Amended EMP cannot be assimilated to an affirmative representation by Barbados that it would operate the Sluice Gate in accordance with the Amended EMP's proposals or in a way to protect the interests of Mr. Allard in the management of the Sanctuary.
214. The submission of an environmental management plan for the Sanctuary was a condition imposed on the Claimant by Barbados for receiving a planning and development permit. It was part of the Barbadian environmental assessment process. The Claimant admits that drainage-related issues "came up during the environmental assessment process,"³⁵⁸ after Barbados requested the Claimant to submit a "comprehensive drainage plan of the swamp including the sluice gate,"³⁵⁹ as a requirement for the approval of the EMP.
215. It follows that the approval of the Amended EMP did not amount to an implicit undertaking of the State to adopt a course of conduct consistent with the terms of the EMP. The approval merely meant that Barbados deemed the EMP as sufficing for the purposes of the environmental impact assessment requirement. Barbados' approval of the Amended EMP, including in its part concerning the drainage plan, merely entitled the Claimant to expect that he could proceed with his project without objection from the State on environmental grounds, but did not constitute a representation that the State would manage the Sluice Gate as proposed in the EMP.
216. The Tribunal concludes that Barbados did not make specific and direct representations giving rise to any legitimate expectations on the part of Mr. Allard regarding the maintenance and operation of the Sluice Gate.

³⁵⁷ Exhibit R-36, Letter from the Town and Country Development Planning Office to Luther A. Bourne, 12 April 1999. *See also* Hearing Tr., 10 December 2015, 555:9-556:14 (examination of Mr. Mark Cummins).

³⁵⁸ Hearing Tr., 8 December 2015, 54:23-25 (Claimant's opening statement)

³⁵⁹ Exhibit C-37, Letter from the Town & Country Development Planning Office, 27 March 1998.

(ii) *Whether Mr. Allard relied on any representations of Barbados*

217. Reliance by the investor on the host State's representations is an essential element of a claim of breach of the FET standard based on the notion of legitimate expectations.
218. The reliance criterion requires that the investor's decisions to invest be made in reliance on representations made to him by the State, including both his initial investment decision and also further investment decisions, such as a decision to inject additional capital into an ongoing project. In each case, a breach of the FET standard may arise if the State later acts in a manner contrary to its representations. However, the investor will be able to claim for damage in respect only of the part of its investment that was made after and in reliance on the State's representations.
219. Accordingly, the Respondent's argument that its alleged representations to Mr. Allard were made, for the most part, after Mr. Allard's initial decision to invest in the Sanctuary and can therefore not have been relied upon by him, is not in itself dispositive.
220. Nevertheless, the Tribunal here finds that Mr. Allard did not make either his initial or later investment decisions in reliance on any representations made by Barbados. He presents as a person of philanthropic intentions and of enthusiasms. It appears that he took the decision to invest in 1994, before any of the alleged representations were made, with the exception of the 1986 Plan. In 1994, he made what may, without criticisms, be described as an impulsive commitment, followed by an offer to buy the first part of the Sanctuary grounds in February 1995.³⁶⁰ He ultimately bought it in 1996.³⁶¹ Thereafter, the second and third parcels were purchased in 1998 and 1999.³⁶² From 2000 to 2004, he funded construction at the site in preparation for the Sanctuary's opening to visitors in 2004.
221. It is during this period from 1995 to 2004 that all of the alleged representations of Barbados on which the Claimant now seeks to rely were made. However, in the entirety of the evidence there is no confirmation that the taking of any of the investment decisions during this period was predicated upon the receipt by Mr. Allard of any relevant assurances from Barbados.
222. In summary, Mr. Allard appears to have taken the decision to create a bird and nature reserve on the Sanctuary grounds as early as his first visit to the Sanctuary in the company of Mr. Watson in 1994, and he moved in the following ten years toward the realization of his project irrespective, and not in

³⁶⁰ Exhibit C-16, Letter from Peter A. Allard to Property Consultants Ltd., 3 February 1995.

³⁶¹ Exhibit C-17, Property conveyance between Property Consultants Ltd. and GHNSI, 20 December 1996.

³⁶² Exhibit C-19, Property conveyance between the estate of William Norman Alleyne and GHNSI, 7 October 1998; Exhibit C-18, Property conveyance between Southdown Enterprises Inc and GHNSI, 31 August 1999.

reliance upon, any relevant representations made by Barbados.³⁶³ As words more of praise than of criticism, Mr. Allard appears to have been of visionary disposition in respect of this project. Unfortunately, when things go wrong, good intentions do not directly translate to establishing a backstop to shift responsibility under the terms of the BIT to the State.

223. What is determinative here is that Mr. Allard's investment was conditional neither on any general expressions of positive environmental policy, such as those found in the 1986 Plan, the 1995 Cummins Letter, and the First and Second ARA Reports, nor on any representations concerning the management and operation of the Sluice Gate.
224. As to general environmental policy, although Mr. Allard realized that he would only receive Barbados' support once his EMP was approved,³⁶⁴ he nonetheless purchased the first and second parcels of the Sanctuary, and commenced its development, before even submitting an environmental management plan for approval, and did so against the advice and warnings of Barbados officials.³⁶⁵ The third parcel was acquired after the First EMP had been rejected, but before the submission of the Amended EMP.
225. As to the management and operation of the Sluice Gate, the main representation on which the Claimant seeks to rely is Barbados' overall approval of the Amended EMP in 2001.³⁶⁶ Yet, the Claimant bought all of the Sanctuary land and began the development of the project³⁶⁷ before the Amended EMP was approved, despite having been of the view that "[c]orrect ecological operation of [the] sluice gate is a necessity to maintain the right saline content of Graeme Hall,"³⁶⁸ as stated in his initial proposal of 1995.

³⁶³ Watson Statement, ¶¶ 19-21; Hearing Tr., 8 December 2015, 182:19-183:15 (examination of Peter A. Allard); Hearing Tr., 14 December 2015, 820:13-821:10 (examination of Dr. Karl Watson).

³⁶⁴ See Exhibit C-27, 1995 Cummins Letter; Exhibit C-34, Letter from the Permanent Secretary (Economic Affairs) in the Ministry of Financial and Economic Affairs to Joseph Ward, 8 August 1996.

³⁶⁵ Exhibit R-36, Letter from the Town and Country Development Planning Office to Luther A. Bourne, 12 April 1999.

³⁶⁶ Exhibit C-172, Letter from GHNSI to Chief Town Planner, 19 March 2001.

³⁶⁷ Exhibit R-36, Letter from the Town and Country Development Planning Office to Luther A. Bourne, 12 April 1999.

³⁶⁸ Exhibit C-21, Graeme Hall Lake – An Eco-Tourist Development Proposal by Ruby Sea Investments Ltd., 18 February 1995.

(iii) *Conclusion*

226. For the reasons set out above, the Tribunal concludes that the Claimant has failed to establish that:

- (1) Barbados made any specific representations to the Claimant; and that
- (2) the Claimant relied on any such representations in acquiring and developing the Sanctuary.

227. As the Claimant did not rely, the question of whether reliance was reasonable is moot.

228. Consequently, the Tribunal cannot find a violation of Article II(2)(a) of the BIT.

2. FPS

229. Article II(2) of the BIT relevantly provides:

2. Each Contracting Party shall accord investments or returns of investors of the other Contracting Party: [. . .]

(b) full protection and security [. . .]

(a) The Claimant's position

230. The Claimant contends that the FPS standard obligates the host State to act with due diligence to “protect investments against injury by private parties,”³⁶⁹ requiring “nothing more nor less than the reasonable measures of prevention which a well-administered government could be expected to exercise,” without “any need to establish malice or negligence,”³⁷⁰ and that here, Barbados’ obligations under the *Convention on Biological Diversity* and the *Ramsar Convention* heighten the level of diligence required.³⁷¹ Further, the Claimant argues that in determining whether a State has exercised due diligence, it is relevant to consider whether:

- (i) the facts at issue were known to the host State;
- (ii) the host State conducted investigations in response to complaints by the investor; and
- (iii) the host State took adequate steps to apprehend a wrongdoer or otherwise enforce a penalty.³⁷²

³⁶⁹ Statement of Claim, ¶ 115.

³⁷⁰ Statement of Claim, ¶ 116, quoting *Agricultural Products v. Sri Lanka*, ICSID Case ARB/87/3, Award, 27 June 1990, ¶ 77. See also Hearing Tr., 17 December 2015, 1515:12-1516:7 (Claimant’s closing statement).

³⁷¹ Statement of Claim, ¶ 124.

³⁷² Statement of Claim, ¶ 117, referring to *Pantechniki S.A. Contractors & Engineers (Greece) v. Republic of Albania*, ICSID Case No. ARB/07/21, Award, 30 July 2009, ¶ 82; *Mexico City Bombardment Claims (Great Britain) v. United Mexican States*, British-Mexican Claims Commission, 5 RIAA 80, 15 February 1930, p. 80; *George Adams Kennedy (U.S.A.) v. United Mexican States*, U.S.-Mexico Claims Commission, 4 RIAA 194, 6 May 1927, p. 201;

231. On reference to the historical development of the FPS standard,³⁷³ jurisprudence of the International Court of Justice³⁷⁴ and other investment awards,³⁷⁵ the Claimant submits that the FPS standard is not limited to protection against “physical interference with property, let alone . . . physical violence”³⁷⁶ and, that in any event, the claim here is one of physical interference with property through the unlawful trespass of pollutants.³⁷⁷ The *Trail Smelter* decision is invoked to establish that damage to private property caused by pollution is an actionable injury under customary international law.³⁷⁸
232. Applying these principles to the claims, the Claimant argues that Barbados denied FPS to Mr. Allard’s investment by failing to take reasonable care to protect the Sanctuary, despite being put on notice of the environmental damage to the Sanctuary and notwithstanding Mr. Allard’s repeated offers of financial and technical assistance. Specifically, Barbados failed to adequately manage the Sluice Gate and enforce its environmental laws, such as the *Marine Pollution Control Act*.³⁷⁹

Too v. Greater Modesto Insurance Associates and the U.S.A., Iran-U.S. Claims Tribunal, Award No. 460-880-2, 1989 WL 663898, 29 December 1989, ¶ 23; *Francisco Mallén (United Mexican States) v. U.S.A.*, US-Mexico Claims Commission, 4 RIAA 173, 27 April 1927; *Thomas H. Youmans (U.S.A.) v. United Mexican States*, US-Mexico Claims Commission, 4 RIAA 110, 23 November 1926; *S.J. Stallings (U.S.A.) v. United Mexican States*, US-Mexico Claims Commission, 4 RIAA 478, 22 April 1929; *Richard A. Newman (U.S.A.) v. United Mexican States*, US-Mexico Claims Commission, 4 RIAA 518, 6 May 1929; *Sarah Ann Gorham (U.S.A.) v. United Mexican States*, US-Mexico Claims Commission, 4 RIAA 640, 24 October 1930; *Lillian Greenlaw Sewell, In Her Own Right and As Guardian of Vernon Monroe Greenlaw, a Minor (U.S.A.) v. United Mexican States*, US-Mexico Claims Commission, 4 RIAA 626, 24 October 1930; *Norman T. Connolly and Myrtle H. Connolly (U.S.A.) v. United Mexican States*, US-Mexico Claims Commission, 4 RIAA 387, 15 October 1928.

³⁷³ Reply, ¶¶ 97-99, referring to G.K. Foster, “Recovering ‘Protection and Security’: The Treaty Standard’s Obscure Origins, Forgotten Meaning, and Key Current Significance,” 45 *Vanderbilt Journal of Transnational Law* 1095.

³⁷⁴ Reply, ¶ 100, referring to *Elettronica Sicula S.p.A. (ELSI) (U.S. v. Italy)*, Judgment of 20 July 1989, ICJ Reports 1989, p.15 at pp. 65-67.

³⁷⁵ Reply, ¶ 101, referring to *CME Czech Republic BV v. Czech Republic* (UNCITRAL), Partial Award, 13 September 2001, ¶ 613; *Azurix Corp v. Argentine Republic*, ICSID Case No ARB/01/12, Award, 14 July 2006, ¶ 408; *Biwater Gauff (Tanzania) Ltd. v. United Republic of Tanzania*, ICSID Case No. ARB/05/22, Award, 24 July 2008, ¶ 729; *National Grid PLC v. Argentine Republic* (UNCITRAL), Award, 3 November 2008, ¶ 189; *Total S.A. v. Argentine Republic*, ICSID Case No. ARB/04/1, Decision on Liability, 27 December 2010, ¶ 343; *Frontier Petroleum Services Ltd. v. Czech Republic* (UNCITRAL), Final Award, 12 November 2010, ¶ 263; *Compañía de Aguas del Aconquija S.A. and Vivendi Universal S.A. v. Argentine Republic*, ICSID Case No. ARB/97/3, Resubmitted Case, Award, 20 August 2007, ¶ 7.5.21; *Ceskoslovenka obchodnibanka, a.s. v. Slovak Republic*, ICSID Case No. ARB/97/4, Award, 29 December 2004, ¶ 170.

³⁷⁶ Reply, ¶¶ 96-101. See also Hearing Tr., 8 December 2015, 81:1-17 (Claimant’s opening statement).

³⁷⁷ Reply, ¶ 103; Hearing Tr., 17 December 2015, 1516:6-7 (Claimant’s closing statement).

³⁷⁸ Statement of Claim, ¶ 120; Reply, ¶ 106, referring to *Trail Smelter Case* (U.S.A. v. Canada), UNRIAA, vol. III (Sales No. 1949. V.2), p. 1965 (1938, 1941).

³⁷⁹ Statement of Claim, ¶¶ 137-139, referring to Exhibit C-107, *Marine Pollution Act Control Act*, L.R.O. 1998, CAP 392A; Claimant’s Skeleton Argument, ¶ 55.

233. The Claimant asserts that his letters to Barbados³⁸⁰ and Barbados' own internal documents³⁸¹ establish that Barbados was aware both of the risks arising from mismanagement of the Sluice Gate and the environmental degradation of the Sanctuary. The Claimant highlights his repeated offers to assist Barbados with the prevention and remediation of environmental damage to the Sanctuary and particularly with the repair of the Sluice Gate, including that he sponsored a three-day trip for Government officials to meet with specialists in Florida and provided \$5,000 to the CZMU for hydrology testing and monitoring equipment.³⁸²
234. In particular, the Claimant contends that Barbados could and should have taken the following "reasonable measures":
- (i) repairing the Sluice Gate and establishing a regular schedule for water exchange between the Sanctuary and the sea;
 - (ii) reconfiguring government-owned ditches so that stormwater could be directed to the sea through the Sluice Gate;
 - (iii) allowing contaminated stormwater to flow to the Barbados South Coast Sewage Plant and be pumped out to sea in off-peak hours;
 - (iv) notifying the Sanctuary when a failure occurred at the sewage plant;
 - (v) using adjacent lands to intercept and treat stormwater in retention basins; and
 - (vi) prohibiting adjacent commercial properties from discharging wastewaters.³⁸³

³⁸⁰ Statement of Claim, ¶¶ 70-71, 137, referring to Exhibits C-68 to C-70, Letters from Roger Sweeney to the Chief Town Planner, the CZMU and the Chief Environmental Engineer dated 24 and 25 October 2000; Exhibit C-50, Letter from Stuart Heaslet to the Chief Environmental Engineer, 14 April 2004; Exhibit C-71, Letter from Peter A. Allard to the Minister of Health and the Director of the CZMU, 13 October 2009.

³⁸¹ Reply, ¶¶ 47-50, referring to Exhibit C-45, Memorandum from the CZMU to the Chief Town Planner, 17 March 1999; Exhibit C-173, Memorandum from the Senior Technical Officer (drainage division), Ministry of Environment, Water Resources and Drainage to Director, Natural Heritage Department, 12 October 2009, pp. 2-3; Exhibit C-174, Graeme Hall Environmental Stewardship Committee Meeting, List of Attendees and Minutes, 11 February 2005, p. 3; Exhibit C-175, Report of the Graeme Hall Science Committee, 9 June 2006, p. 1. *See also* Hearing Tr., 17 December 2015, 1493:9-17 (Claimant's closing statement).

³⁸² Statement of Claim, ¶¶ 46-51, 138, referring to Heaslet Statement, ¶¶ 15, 21-24; Exhibits C-48 to C-50, C-52, Letters from Stuart Heaslet to the Permanent Secretary in the Ministry of Public Works dated 12 January 2004, 24 March 2004, 14 April 2004, 31 January 2005; Exhibit C-51, Fax from Harry Roberts to the Permanent Secretary in the Ministry of Public Works, 17 November 2004; Exhibit C-71, Letter from Peter A. Allard to the Minister of Health and the Director of the CZMU, 13 October 2009; Exhibit C-84, Letter from Stuart Heaslet to Lorna Inniss, Deputy Director in the Ministry of Housing, Lands and Environment, 17 November 2003.

³⁸³ Statement of Claim, ¶ 79, referring to First EEC Report, ¶¶ 24-32. *See also* Reply, ¶¶ 108-109.

(b) The Respondent's position

235. The Respondent submits that the FPS standard is limited to “protection against direct physical harm to an investor or its property by a State, its agents or as the result of the State’s gross negligence in protecting the investment against physical harm,”³⁸⁴ and does not impose “liability on the host State for alleged violations by third parties of domestic environmental legislation.”³⁸⁵ To the extent that the FPS standard obligates the State to exercise due diligence, it is in “providing protection and security”; there is no autonomous “due diligence” requirement that applies to the entirety of the host State’s conduct.³⁸⁶
236. The FPS standard under the BIT merely reflects customary international law³⁸⁷ and the Claimant’s citations do not establish consistent State practice and *opinio juris* to a higher obligation.³⁸⁸ The arbitral awards cited by the Claimant are irrelevant to establishing the content of customary international law as they interpret specific clauses of particular treaties.³⁸⁹ Some of the cases involve direct physical interference with the investment by the host State,³⁹⁰ and the few cases that have interpreted the FPS standard “to cover more than physical harm” are “controversial.”³⁹¹ The finding in the *Trail Smelter* case that “no State has the right to use or permit the use of its territory in such a manner as to cause injury” also is irrelevant, as it was made in the context of an inter-State dispute and was a “manifestation of the concepts of national sovereignty and non-interference.”³⁹²

³⁸⁴ Rejoinder, ¶ 293, referring to Rudolph Dolzer and Christoph Schreuer, *Principles of International Investment Law*, 2nd ed. (OUP, 2012), p. 161.

³⁸⁵ Rejoinder, ¶¶ 286, 298. *See also* Hearing Tr., 17 December 2015, 1636:14-22 (Respondent’s closing statement).

³⁸⁶ Rejoinder, ¶ 307.

³⁸⁷ Counter-Memorial, ¶¶ 91-92; Rejoinder, ¶¶ 296-298.

³⁸⁸ Rejoinder, ¶ 298.

³⁸⁹ Rejoinder, ¶ 300.

³⁹⁰ Rejoinder, ¶ 300, referring to *Bewater Gauff Tanzania Ltd. v. Tanzania*, ICSID Case No. ARB/05/22, Award, 24 July 2008, ¶ 731.

³⁹¹ Rejoinder, ¶¶ 302, 305, referring to *AWG Group Ltd. v. Argentina* (UNCITRAL), Decision on Liability, 30 July 2010, ¶¶ 177-178; *BG Group Plc. v. Argentina* (UNCITRAL), Final Award, 24 December 2007; *PSEG Global Inc., The North American Coal Corporation and Konyan Ingin Elektrik Uretim ve Ticaret Limited Siketi v. Turkey*, ICSID Case No. ARB/02/5, Award, 19 January 2007, ¶ 324; *Rumeli Telekom A.S. and Telsim Mobil Telekomunikasyon Hizmetleri A.S. v. Kazakhstan*, ICSID Case No. ARB/05/16, Decision on Liability; *Rumeli Telekom A.S. and Telsim Mobil Telekomunikasyon Hizmetleri A.S. v. Kazakhstan*, ICSID Case No. ARB/05/16, Award, 29 July 2008, ¶ 669.

³⁹² Counter-Memorial, ¶¶ 97-98; Rejoinder, ¶¶ 289, 311, referring to *Trail Smelter Case*, UNRIAA, Vol. III (Sales No. 1949 v. 2), 1905 (1938, 1941), p. 1965. *See also* Hearing Tr., 17 December 2015, 1635:1-1636:7 (Respondent’s closing statement).

237. The Claimant's late identification of alleged crimes under the *Marine Pollution Control Act* is not a good faith argument, as the Claimant "never filed any complaints" under this law.³⁹³ Nor does the *Marine Pollution Control Act* create a general criminal offence that automatically attributes all pollution caused to the Sanctuary to the Respondent.³⁹⁴
238. In summary, the Respondent submits that the Claimant has failed to establish that it violated its obligations "under any interpretation of the FPS standard" in that:³⁹⁵
- (i) the Claimant has not shown that the Sanctuary underwent environmental degradation or that such degradation was caused by the Respondent's alleged violations (see paragraphs 62-79 above);³⁹⁶
 - (ii) the Claimant cannot complain of the mismanagement of the Sluice Gate given his own failure to submit a comprehensive drainage plan (see paragraph 187 above); and³⁹⁷
 - (iii) in any event, the Respondent "took extensive steps to ensure the long-term preservation of Graeme Hall [Swamp]."³⁹⁸ In particular, the Respondent:
 - (a) became a party to the *Convention on Biological Diversity*;³⁹⁹
 - (b) adopted a range of legislation directly or indirectly serving to protect Graeme Hall Swamp;⁴⁰⁰
 - (c) commissioned the First and Second ARA Reports, at a cost of \$800,000;⁴⁰¹

³⁹³ Rejoinder, ¶ 316, referring to *GEA Group Aktiengesellschaft v. Ukraine*, ICSID Case No. ARB/08/16, Award, 31 March 2011, ¶ 247.

³⁹⁴ Counter-Memorial, ¶ 101.

³⁹⁵ Rejoinder, ¶ 291.

³⁹⁶ Counter-Memorial, ¶ 103; Rejoinder, ¶¶ 292, 320.

³⁹⁷ Counter-Memorial, ¶ 99, referring to First Hunte Report, p. 4.

³⁹⁸ Rejoinder, ¶ 148; see also ¶¶ 291, 317-318; Hearing. Tr., 8 December 2015, 136:21-137:4 (Respondent's opening statement), referring to Exhibit R-39, Letter from the Minister of Energy and the Environment to Stuart Heaslet, 29 June 2007.

³⁹⁹ Rejoinder, ¶¶ 149-150.

⁴⁰⁰ Rejoinder, ¶¶ 151-154, listing the *Beach Protection Act*, the *Fisheries Regulation Act*, the *Marine Areas (Preservation and Enhancement) Act*; the *Marine Boundaries and Jurisdiction Act*, the *Barbados Territorial Waters Act*; the *National Conservation Commission Act*; the *Shipping (Oil Pollution) Act 1994*, the *Wild Birds Protection Act* Cap. 398, the *Coastal Management Act*, 1997 and the *Marine Pollution Control Act*, 1997.

⁴⁰¹ Rejoinder, ¶¶ 155-156.

- (d) invested over \$70 million in building the South Coast Sewage Treatment Plant, which reduces one of the most significant pollutants at Graeme Hall Swamp—the dumping of untreated waste;⁴⁰²
- (e) designated the Sanctuary and a large area around it as a Natural Heritage Conservation Area under the 2003 Plan, ensuring that very little development occurred in the vicinity of the Sanctuary;⁴⁰³
- (f) set up the Graeme Hall Stewardship Committee, which served to coordinate the activities of the different governmental actors, commissioned important basic research and devised a Master Plan for the long-term protection of Graeme Hall Swamp;⁴⁰⁴ and
- (g) designated Graeme Hall Swamp under the Ramsar Convention, giving it access to a small grants fund and enhanced international technical assistance.⁴⁰⁵

(c) The Tribunal’s analysis

239. In essence, the Claimant complains that Barbados breached the FPS standard by failing to:

- (i) repair and regularly operate the Sluice Gate;
- (ii) take the other specific steps listed at paragraph 234 above to reduce the run-off of contaminants into the Sanctuary; and
- (iii) enforce the *Marine Pollution Control Act*.

240. In substance, the Parties agree that none of these actions were taken by Barbados.

241. With regard to the first two complaints, it may be accepted that the record supports the Claimant’s contention that Barbados was aware of the potential environmental importance of the Sluice Gate and the possible presence of contaminants in both the natural run-off to the Sanctuary and in any emergency discharge from the Barbados South Coast Sewage Plant.⁴⁰⁶

⁴⁰² Rejoinder, ¶¶ 163-164, 317(a).

⁴⁰³ Rejoinder, ¶¶ 167-173, 317(b), referring to Second Cummins Statement, ¶¶ 10-14. *See also* Hearing Tr., 8 December 2015, 147:5-148:16 (Respondent’s opening statement).

⁴⁰⁴ Rejoinder, ¶¶ 174-181, 190-195, 317(c). *See also* Hearing Tr., 8 December 2015, 138:4-25; 139:1-12; 141:4-7 (Respondent’s opening statement).

⁴⁰⁵ Rejoinder, ¶¶ 183-188, 317(d), referring to Inniss Statement, ¶ 26; Hearing Tr., 8 December 2015, 140:6-16 (Respondent’s opening statement).

⁴⁰⁶ Thus, the Claimant complained to Barbados about the absence of a fully functional Sluice Gate and the adverse effect on the Sanctuary’s water quality (Exhibits C-68 to C-70, Letters from Roger Sweeney to the Chief Town

242. The Tribunal further finds, however, that, being aware of the environmental sensitivities of the Sanctuary, Barbados took reasonable steps to protect it.
243. It is accepted by the Claimant that the obligation of the State to provide the investment with FPS is not one of strict liability, but of “due diligence” or “reasonable care.”⁴⁰⁷ Relevantly, and as noted in *El Paso v. Argentina*:
- [. . .] the obligation to show “due diligence” does not mean that the State has to prevent each and every injury. Rather, the obligation is generally understood as requiring that the State take reasonable actions within its power to avoid injury when it is, or should be, aware that there is a risk of injury. The precise degree of care, of what is “reasonable or “due”, depends in part on the circumstances.⁴⁰⁸
244. The obligation is limited to reasonable action, and a host State is not required to take any specific steps that an investor asks of it. The fact that Barbados is a party to the *Convention on Biological Diversity* and the *Ramsar Convention* does not change the standard under the BIT, although consideration of a host State’s international obligations may well be relevant in the application of the standard to particular circumstances.
245. Here, it is established that Barbadian officials implemented procedures to prevent environmental damage to the Sanctuary both on their own initiative and in response to the Claimant’s complaints.⁴⁰⁹ In particular, Barbados established the Graeme Hall Stewardship Committee (“**Committee**”) in 2003, in order “to investigate and coordinate government action at Graeme Hall [Swamp] in an

Planner, the CZMU and the Chief Environmental Engineer dated 24 and 25 October 2000; Exhibit C-71, Letter from Peter A. Allard to the Minister of Health and the Director of the CZMU dated 13 October 2009), and water levels (Exhibits C-49 to C-50, Letters from Stuart Heaslet to the Permanent Secretary in the Ministry of Public Works dated 12 January and 25 March 2004, and to the Chief Environmental Health Officer in the Ministry of Health, 14 April 2004; Exhibit C-51, Fax from Harry Roberts to the Permanent Secretary in the Ministry of Public Works, 17 November 2004; Exhibits R-88 to R-89, Letters from Harry Roberts to the Permanent Secretary of the Ministry of Public Works dated 5 October 2005 and 24 May 2006). In addition, drainage and sewage discharge issues were recurrent subjects of discussion during the Graeme Hall Stewardship Committee’s meetings, at which the Claimant complained directly to Barbados’ officials. Hearing Tr., 17 December 2015, 1493:9-17 (Claimant’s closing statement); Exhibit C-174, Graeme Hall Stewardship Committee Meeting: List of Attendees and Minutes of Meeting, 11 February 2005; Exhibit R-71, Minutes of the Graeme Hall Stewardship Committee meeting of 17 October 2005, 4 November 2005; Exhibit C-175, Report of the Graeme Hall Science Committee Meeting, 9 June 2006.

⁴⁰⁷ Statement of Claim, ¶ 115; Hearing Tr., 8 December 2015, 80:19-22 (Claimant’s opening statement).

⁴⁰⁸ *El Paso Energy International Company v. Argentina*, ICSID Case No. ARB/03/15, Award, 31 October 2011, ¶ 523.

⁴⁰⁹ Barbados usually took into account the Claimant’s position. See Inniss Statement, ¶ 10; Exhibit C-174, Graeme Hall Stewardship Committee Meeting: List of Attendees and Minutes of Meeting, 11 February 2005, p. 4; Exhibit R-71, Minutes of the Graeme Hall Stewardship Committee meeting of 17 October 2005, 4 November 2005, ¶¶ 4, 14; Exhibit C-175, Report of the Graeme Hall Science Committee Meeting, 9 June 2006; Exhibit R-39, Letter from the Minister of Energy and the Environment to Stuart Heaslet, 29 June 2007; Exhibit R-44, Worthing Sluice Gate Study, Final Report, Baird & Associates, 31 May 2011, p. 4.

integrated manner.”⁴¹⁰ The Committee was comprised of representatives of all the ministries responsible for managing the Graeme Hall Swamp ecosystem,⁴¹¹ as well as representatives of private stakeholders, including GHNSI.⁴¹² The Committee “was tasked by Cabinet to meet as often as necessary and to report back to government” in order to “address the issues related to effective management of the Graeme Hall ecosystem,”⁴¹³ and undertook to develop a Master Plan for the long-term preservation of the Graeme Hall Swamp,⁴¹⁴ which, in its draft form of 2007, identified “the significant issues of concern affecting the environmental [conditions of the swamp’s ecosystem]” and set forth the “immediate actions required to ameliorate [these] environmental problems,”⁴¹⁵ including, *inter alia*, sewage management, use of adjacent lands, drainage and the Sluice Gate.⁴¹⁶

246. The Committee addressed the interaction between the Sanctuary and the South Coast Sewage Plant,⁴¹⁷ as evidenced by the Government’s prompt reaction to the 2005 spill.⁴¹⁸ It also ensured that any land development applications submitted to the Chief Town Planner were consistent with the objective of environmental protection of the Sanctuary and prevented the establishment of potential polluters in the vicinity of the Sanctuary.⁴¹⁹ When the Sluice Gate became inoperable, the Committee

⁴¹⁰ Inniss Statement, ¶ 9. *See also* Witness Statement by Mr. Steve Devonish dated 27 August 2015 (“Devonish Statement”), ¶ 8.

⁴¹¹ Inniss Statement, ¶ 9; Devonish Statement, ¶ 9.

⁴¹² Inniss Statement, ¶ 10; Exhibit C-174, Graeme Hall Stewardship Committee Meeting: List of Attendees and Minutes of Meeting, 11 February 2005, p. 4; Exhibit R-71, Minutes of the Graeme Hall Stewardship Committee meeting of 17 October 2005, 4 November 2005, p. 1; Exhibit C-175, Report of the Graeme Hall Science Committee Meeting, 9 June 2006, p. 1.

⁴¹³ Devonish Statement, ¶ 9.

⁴¹⁴ *See* Exhibit C-72, Draft Master Plan for the Graeme Hall Ecosystem, September 2007.

⁴¹⁵ Exhibit C-72, Draft Master Plan for the Graeme Hall Ecosystem, September 2007, p. 9. *See also* Inniss Statement, ¶¶ 45-47.

⁴¹⁶ Exhibit C-72, Draft Master Plan for the Graeme Hall Ecosystem, September 2007, pp. 26-31.

⁴¹⁷ Inniss Statement, ¶¶ 30, 33.

⁴¹⁸ The Government commissioned a water quality study to investigate the effects of the sewage spill on the Sanctuary’s waters days after the spill occurred. Exhibit R-79, Letter from Hugh Sealy, New Water Incorporated, to Barbados Water Authority, 9 September 2005. *See also* Hearing Tr., 8 December 2015, 139:13-140:4 (Respondent’s opening statement); Inniss Statement, ¶ 32; Hearing Tr., 9 December 2015, 407:3-408:6; 411:23-413:20 (examination of Mr. Stuart Heaslet); Exhibit R-71, Minutes of the Graeme Hall Stewardship Committee meeting of 17 October 2005, 4 November 2005, ¶¶ 1, 2, 4.

⁴¹⁹ GHNSI, as a member of the Committee, participated in the assessment of the environmental aspects of applications. For instance, in the context of the review of an application for the construction of a water amusement park near the Sanctuary, the Claimant “raised a number of concerns with respect to the [Environmental Impact Assessment of the development] specifically related to water usage and discharge.” Exhibit C-175, Report of the Graeme Hall Science Committee Meeting, 9 June 2006. The application was then rejected by the Minister responsible for town planning matters on the grounds that “[t]he Environmental Impact Assessment (EIA) submitted in support of the project did not systematically identify possible measures to avoid reducing potentially

coordinated the action of the responsible ministries to ensure drainage of the Graeme Hall Swamp by other means,⁴²⁰ while the Government collected data in terms of water levels and water quality⁴²¹ and carried out relevant studies⁴²² to ascertain the hydrology of the site and the interaction between the swamp and the sea.⁴²³

247. As noted in paragraph 153 above, the Sluice Gate was close to inoperable during the entire Relevant Period. However, the issues concerning repair and operation of the Sluice Gate and the passing of water between the Sanctuary and the sea are not the simple matters the Claimant suggests they are. There is a wider group of stakeholders, and the Tribunal accepts the explanations made by Dr. Inniss that “there needed to be a wider solution besides just the gate, [that a] major hydrogeological study . . . was needed to understand how the hydrology in the swamp should be optimized and the structures that should be put in place in order to give effect to that optimization.”⁴²⁴ Thus, the coastal

adverse impacts.” Exhibit R-33, Decision on Application for Proposed Waterpark, 3 January 2008. *See also* Second Cummins Statement, ¶ 12.

⁴²⁰ These measures included the placement of an artificial sandbar in front of the Sluice Gate by the Ministry of Public Works of Barbados (Hearing Tr., 11 December 2015, 770:12-772:2 (examination of Dr. Lorna Inniss)); the removal of the sand piled in the canal by the Drainage Division as required to control water levels and flooding (Hearing Tr., 10 December 2015, 663:1-15 (examination of Mr. Steve Devonish); channel-clearing conducted by the CZMU; and sedges-clearing by the Ministry of Health (Exhibit C-175, Report of the Graeme Hall Science Committee Meeting, 9 June 2006).

⁴²¹ Hearing Tr., 11 December 2015, 721:10-22; 726:18-727:9; 733:10-735:7 (examination of Dr. Lorna Inniss). *See also* Exhibit C-84, Letter from Stuart Heaslet to Dr. Lorna Inniss, 17 November 2003.

⁴²² These studies included: a review of all the research ever done on the Graeme Hall Swamp carried out by a master’s student at the University of West Indies; a review of the hydrology of the swamp and the sea by the CZMU (*see* Exhibit C-174, Graeme Hall Stewardship Committee Meeting: List of Attendees and Minutes of Meeting, 11 February 2005); the Graeme Hall project regarding the assessment of surface water balance and the design of a new sluice gate, conducted by the CZMU together with McGill University (*see* Exhibit R-71, Minutes of the Graeme Hall Stewardship Committee meeting of 17 October 2005, 4 November 2005); the review of the operation of the Sluice Gate and the study of the Worthing Lagoon area conducted by Baird & Associates in 2004 and 2006 (*see* Exhibit R-41, Letter from Derek Williamson (Baird & Associates) to the CZMU, 5 May 2010; Exhibit R-44, Worthing Sluice Gate Study, Final Report, Baird & Associates, 31 May 2011, p. 4). *See also* Hearing Tr., 10 December 2015, 663:6-664:7 (examination of Mr. Steve Devonish).

⁴²³ It appears that Barbados has recently decided to go forward with the sluice gate proposal prepared by Baird & Associates, which is currently undergoing an environmental impact assessment. *See* Hearing Tr., 10 December 2015, 645:23-646:7 (examination of Mr. Steve Devonish). *See also* Exhibit R-44, Worthing Sluice Gate Study, Final Report, Baird & Associates, 31 May 2011, p. 4; Exhibit R-46, Graeme Hall Swamp Outlet Outfall and Outfall Intake Structure, Project No. 11334 prepared by Baird & Associates for the Government of Barbados (Ministry of Environment and Drainage), 5 June 2013; Exhibit R-47, Planning Application submitted by Director, Natural Heritage Department to Town and Country Planning, 26 May 2014; Exhibit R-48, Letter from the Town and Country Development Planning Office to the Natural Heritage Department, 28 July 2014.

⁴²⁴ Hearing Tr., 11 December 2015, 776:11-17 (examination of Dr. Lorna Inniss). *See also* Hearing Tr., 11 December 2015, 794:12-795:2 (examination of Dr. Lorna Inniss).

geomorphology of the beach needed to be assessed to understand what type of repair was required.⁴²⁵ The only known options for upgrading the Sluice Gate during the Relevant Period were those proposed in the 1996 Barbados Stormwater Drainage Study.⁴²⁶ However, by 2006, the situation on the ground had changed, the width of the beach having increased significantly,⁴²⁷ which limited both tidal and groundwater exchange.⁴²⁸ As explained by Dr. Inniss:

[. . .] what was urgently needed before [the] Government invested in a new gate was that hydrogeological study that would then tell us whether we needed a series of gates or a series of weirs or whether we needed to change the elevation of certain sections of the swamp so that hydrology within the wetland would be optimized. We felt that that was much more urgent than a new sluice gate.⁴²⁹

248. The Sluice Gate's operation would affect the Sanctuary, the surrounding lands, including government lands, as well as the public beach. The interaction between the Sanctuary and the sea through the Sluice Gate raised two major concerns. First, the wastewater discharged from the Sluice Gate onto the beach necessarily would have a negative impact on the near-shore sea grass, coral reefs and water quality,⁴³⁰ and affect the availability of adjacent tourist and public uses of the sea and its beaches. Second, operation of the Sluice Gate in a way that would allow seawater to enter the Sanctuary (assuming this is possible) may entail the risk of flooding of the adjacent properties.⁴³¹ It was therefore no easy issue to establish the hydrology of the whole area and to administer it in the interests of all the stakeholders.
249. Under these circumstances, Barbados' approach in addressing the Sluice Gate and general pollution issues at the Sanctuary as part of its governance of the entire area does not fall short of what was appropriate and sufficient for purposes of the duty of due diligence required by Article II(2)(b) of the BIT.

⁴²⁵ Hearing Tr., 11 December 2015, 781:5-22 (examination of Dr. Lorna Inniss). *See also* Hearing Tr., 11 December 2015, 777:21-778:12 (examination of Dr. Lorna Inniss).

⁴²⁶ Exhibit C-97, 1996 Barbados Stormwater Drainage Study, pp. 3-21 to 3-26.

⁴²⁷ Hearing Tr., 11 December 2015, 781:8-11 (examination of Dr. Lorna Inniss).

⁴²⁸ Exhibit C-72, Draft Master Plan for the Graeme Hall Ecosystem, September 2007, pp. 2-3, 5; Exhibit R-71, Minutes of the Graeme Hall Stewardship Committee meeting of 17 October 2005, 4 November 2005.

⁴²⁹ Hearing Tr., 11 December 2015, 794:21-795:2 (examination of Dr. Lorna Inniss).

⁴³⁰ Exhibit C-97, 1996 Barbados Stormwater Drainage Study, pp. 2-22, 2-23, 2-25, 3-24; Exhibit C-56, First ARA Report, p. 5-5; Exhibit C-72, Draft Master Plan for the Graeme Hall Ecosystem, September 2007, p. 8; Exhibit R-41, Letter from Derek Williamson (Baird & Associates) to the CZMU, 5 May 2010. *See also* Hearing Tr., 10 December 2015, 647:5-17 (examination of Mr. Steve Devonish).

⁴³¹ Exhibit C-97, 1996 Barbados Stormwater Drainage Study, p. 2-23; Exhibit R-44, Worthing Sluice Gate Study, Final Report, Baird & Associates, 31 May 2011, p. 4.

250. Standing back from the detail of the Claimant’s retrospective analysis of the situation of the Sluice Gate during the Relevant Period, it is quite implausible for the Claimant to attribute responsibility for the egress or ingress of Sanctuary waters to the actions or inactions with respect to the operation of the Sluice Gate.
251. The Tribunal is also not satisfied that Barbados breached the FPS standard in any respect by failing to enforce the *Marine Pollution Control Act*. On no view is the claim sufficiently particularized. The Claimant’s claim is that Section 3 “creates the criminal offence of releasing any pollutant into the environment in excess of applicable standards” and that Barbados failed to enforce the *Act* against “any of the sources of contamination of the Sanctuary’s waters.”⁴³² Yet the Claimant has not even attempted to identify which sources of pollution that allegedly contaminated the Sanctuary’s waters were also prosecutable offences under the *Act*. Additionally, the Claimant appears not to have informed Barbados of the need for the enforcement of the *Act* at any time before this arbitration.
252. In summary, the Tribunal agrees with the Respondent’s submission that the Claimant has failed to establish that Barbados violated its obligations of the FPS standard. Even accepting the Claimant’s articulation of the FPS standard as including an obligation of the host State to protect foreign investments against environmental damage, and assuming (*quod non*) that environmental damage was proven in the present case, the Tribunal finds that no violation of the FPS standard arising under Article II(2)(b) of the BIT is established.

3. Expropriation

253. Article VIII of the BIT relevantly provides:

Investments or returns of investors of either Contracting Party shall not be nationalized, expropriated or subjected to measures having an effect equivalent to nationalization or expropriation (hereinafter referred to as “expropriation”) in the territory of the other Contracting Party, except for a public purpose, under due process of law, in a non-discriminatory manner and against prompt, adequate and effective compensation. [. . .]

(a) The Claimant’s position

254. The claim is that the Respondent has applied “measures having an effect equivalent to . . . expropriation.”⁴³³ Such indirect expropriation occurs where a “measure substantially deprives the

⁴³² Statement of Claim, ¶¶ 122, 139.

⁴³³ Statement of Claim, ¶ 105.

owner of the use or reasonably-to-be-expected economic benefit of the property.”⁴³⁴

255. The claim is described as a “classic ‘Catch-22’ position.”⁴³⁵ On the one hand, by designating Graeme Hall Swamp as a “wetland of international importance” under the *Ramsar Convention* and the Sanctuary as a “natural heritage site” under the 2003 Plan, Barbados restricted Mr. Allard from putting the Sanctuary to “any use other than as a conservation project.”⁴³⁶ On the other hand, by failing to responsibly operate the Sluice Gate, maintain the zoning designations of the 1986 Plan or take any action to enforce the *Marine Pollution Control Act*, Barbados allowed the environmental degradation of the Sanctuary, making it impossible to operate it as an eco-tourism attraction.⁴³⁷
256. In reply to the Respondent’s contention that the Claimant retains ownership and occupation and continues to use the Sanctuary for commercial operations, the Claimant explains that “[w]hat’s been expropriated . . . is not the land . . . or the ability to continue operating a café,” but “the ability to carry on an eco-tourism business.”⁴³⁸

(b) The Respondent’s position

257. The exacting nature of the requirement of “substantial deprivation” for a showing of indirect expropriation,⁴³⁹ requires “interference with use of property which has the effect of depriving the owner, in whole or in significant part, of the use or reasonably to be expected economic benefit of property,”⁴⁴⁰ to the extent that the investor is “radically deprived of the economic use and enjoyment of its investments, as if the rights related thereto . . . had ceased to exist.”⁴⁴¹

⁴³⁴ Statement of Claim, ¶ 107, referring to *Metalclad Corporation v. The United Mexican States*, ICSID Case No. ARB(AF)/97/1, Award, 30 August 2000, ¶ 103.

⁴³⁵ Statement of Claim, ¶ 134.

⁴³⁶ Statement of Claim, ¶¶ 6, 59, 134; Reply, ¶ 111.

⁴³⁷ Statement of Claim, ¶ 134.

⁴³⁸ Hearing Tr., 17 December 2015, 1516:25-1517:5 (Claimant’s closing statement).

⁴³⁹ Counter-Memorial, ¶¶ 106-112; Rejoinder, ¶¶ 225-232.

⁴⁴⁰ Counter-Memorial, ¶ 107, quoting *CME v. Czech Republic*, UNCITRAL, Partial Award, 13 September 2001, ¶ 606 (emphasis added by the Respondent).

⁴⁴¹ Counter-Memorial, ¶ 108, quoting *Téchnicas Medioambientales TECMED SA v. United Mexican States*, ICSID Case No. ARB(AF)/00/2, Award, 29 May 2003, ¶ 115.

258. Not all measures that make it “uneconomical to continue a particular business” amount to an expropriation.⁴⁴²
259. Here, the Claimant has not demonstrated a substantial deprivation as he remains in full exclusive possession and control of the Sanctuary. Further, the Sanctuary has not suffered environmental damage, whether occasioned by the Respondent or otherwise.⁴⁴³ It attracted substantial numbers of visitors until it closed in 2009⁴⁴⁴ and, since then, the Claimant has elected to continue such commercial operations on the site as a café and also renting it for wedding celebrations and other social activities.⁴⁴⁵
260. Moreover, the environmental conditions of which the Claimant complains were in place when he acquired the site and “loss” cannot be of something never possessed.⁴⁴⁶ In summary, the Respondent submits that:

Everything in the record of this matter points to the conclusion that the Claimant closed the [Sanctuary], not because the Respondent had forced its closure through any alleged action or inaction, but because the Claimant realised that his operation was uneconomic; and also because the Claimant finally realised that he would have to be responsible for the operation costs.⁴⁴⁷

261. An investor’s reasonable expectations as to the potential use of his property are relevant to determining whether there has been an indirect expropriation.⁴⁴⁸ Here, the Claimant intended to run the Sanctuary as an eco-tourism attraction.⁴⁴⁹ His acquisition of parts of the Sanctuary was subject to specific covenants to the effect that the Sanctuary would not be available for development.⁴⁵⁰ In this

⁴⁴² Counter-Memorial, ¶ 110, quoting *Marvin Roy Feldman Karpa v. United Mexican States*, ICSID Case No. ARB(AF)/99/1, Award, 16 December 2002, ¶ 112.

⁴⁴³ Rejoinder, ¶ 233. See also Counter-Memorial, ¶¶ 117-118; Hearing Tr., 17 December 2015, 1637:1-5 (Respondent’s closing statement).

⁴⁴⁴ Rejoinder, ¶ 233, referring to Second Hunte Report, pp. 24-25; Exhibit R-9, Evanson “Nature lovers’ haven”, *Weekend Nation*, 14 November 2008. See also Hearing Tr., 17 December 2015, 1637:12-19 (Respondent’s closing statement).

⁴⁴⁵ Rejoinder, ¶ 233, referring to Statement of Claim, ¶ 18(c); Exhibits C-146 and C-147, Event Booking Sheets for 2008 and 2009.

⁴⁴⁶ Rejoinder, ¶ 234.

⁴⁴⁷ Rejoinder, ¶ 235.

⁴⁴⁸ Rejoinder, ¶¶ 238-239.

⁴⁴⁹ Rejoinder, ¶ 240, referring to Statement of Claim, ¶ 59; First Allard Statement, ¶ 7.

⁴⁵⁰ Rejoinder, ¶ 240, referring to Exhibit C-18, Property conveyance between Property Consultants Ltd. and GHNSI, 31 August 1999, p. 3; Exhibit C-19, Property conveyance between Property Consultants Ltd. and GHNSI, 7 October 1998, p. 3. See also Hearing Tr., 17 December 2015, 1637:6-11 (Respondent’s closing statement).

context, he has no reasonable complaint that the Sanctuary “cannot be put to any use other than as a conservation project.”⁴⁵¹

262. It has consistently been held by tribunals that protections against unlawful expropriation do not restrict the State’s freedom to enact general legislation and take non-discriminatory measures within the police power of the State.⁴⁵² The designation of the Sanctuary under the *Ramsar Convention* and the 2003 Plan was “fully consistent with sound public policy and was wholly within the police powers of the Respondent.” Consequently, such designation does not amount to an indirect expropriation.⁴⁵³

(c) The Tribunal’s analysis

263. As acknowledged by both Parties, and as is accepted by the Tribunal, the first requirement for a successful claim of indirect expropriation is that, as a result of measures taken by the host State, the investor have suffered a substantial deprivation of the use or expected economic benefit of the investment, such that the investor must establish that the effect of the measures taken by the host State resembles the effect of a direct expropriation.
264. On any view, here it is not established that there has been any such deprivation. Mr. Allard remains the owner of the Sanctuary grounds, on which he continues to operate a café, and acknowledged at the Hearing that “there is some kind of business remaining there.”⁴⁵⁴ It is therefore undisputed that the Claimant has not been deprived of his *entire* investment in Barbados.
265. The argument here is that what has been expropriated is neither the land nor the café, but his ability to run an eco-tourism business. This appears to imply that it is the anticipated returns of an eco-tourism business that constituted the expected economic benefit of the investment. However, even if the Tribunal were to accept that the destruction of the Claimant’s ability to run an eco-tourism business on the Sanctuary grounds could constitute an indirect expropriation under Article VIII of the BIT, the Tribunal’s conclusion on the facts that the Claimant has failed to establish that his

⁴⁵¹ Respondent’s Skeleton Argument, p. 7, quoting Reply, ¶ 111.

⁴⁵² Respondent’s Skeleton Argument, p. 7; Rejoinder, ¶¶ 244-247, referring to *S.D. Myers, Inc v. Canada*, UNCITRAL, Partial Award, 13 November 2000, ¶ 28; *Too v. Greater Modesto Insurance Associates and the United States of America*, Iran-US Claims Tribunal, Award No. 460-880-2, 1989 WL 663898, 29 December 10989, ¶ 59; *Marvin Roy Feldman Karpa v. United Mexican States*, ICSID Case No. ARB(AF)/99/1, Award, 16 December 2002, ¶ 105.

⁴⁵³ Respondent’s Skeleton Argument, p. 7; Rejoinder, ¶ 248; Hearing Tr., 17 December 2015, 1637:20-1638:1 (Respondent’s closing statement).

⁴⁵⁴ Hearing Tr., 17 December 2015, 1516:22-24 (Claimant’s closing statement). See also Hearing Tr., 17 December 2015, 1516:16-17 (Claimant’s closing statement); Exhibits C-146 and C-147, Event Booking Sheets for 2008 and 2009.

decision to cease operating the Sanctuary was due to any degradation of the environment at the Sanctuary forecloses the expropriation claim.

266. For these reasons, the Tribunal rejects the Claimant's claim under Article VIII of the BIT.

C. JURISDICTIONAL OBJECTIONS

267. *Deferred temporal objection.* As noted in paragraph 16 above, in its Award on Jurisdiction, the Tribunal deferred to the merits phase of this arbitration the Respondent's Jurisdictional Objection pertaining to the Tribunal's jurisdiction *ratione temporis* over the Claimant's claims arising from the alleged mismanagement of the Sluice Gate.⁴⁵⁵

268. Article XIII(3) of the BIT provides for a three-year limitation period on arbitration claims:

An investor may submit a dispute as referred to in paragraph (1) to arbitration in accordance with paragraph (4) only if:

[. . .] (d) not more than three years have elapsed from the date on which the investor first acquired, or should have first acquired, knowledge of the alleged breach and knowledge that the investor has incurred loss or damage.

269. As the Claimant commenced these proceedings on 21 May 2010, pursuant to Article XIII(3) the Tribunal has no jurisdiction over claims arising from alleged breaches and consequent loss or damage of which the Claimant first acquired, or should have first acquired, knowledge before 21 May 2007. On this basis, the Parties disagree as to whether the Tribunal has jurisdiction over the Claimant's claims arising from the alleged mismanagement of the Sluice Gate. Their positions on this question were summarized in the Award on Jurisdiction.⁴⁵⁶

270. As noted, the Tribunal deferred consideration of this question to the present phase of the proceedings "as impleading issues intertwined with those that will arise for determination under the merits phase,"⁴⁵⁷ where the Tribunal's determination is that the Claimant has failed both to establish that Barbados breached the BIT by mismanaging the Sluice Gate and that Mr. Allard incurred any loss or damage as a result of mismanagement of the Sluice Gate. This renders moot the question of the Tribunal's jurisdiction *ratione temporis* over the Claimant's claims arising from such alleged mismanagement. Conceptually time, even on an imputed basis, cannot be said to be capable of running from a non-event.

⁴⁵⁵ Award on Jurisdiction, ¶¶ 112-113.

⁴⁵⁶ Award on Jurisdiction, ¶¶ 97-98, 100-107.

⁴⁵⁷ Award on Jurisdiction, ¶ 112.

271. *Further jurisdictional objections.* The Respondent argued in its closing statement on the last day of the Hearing that Mr. Allard’s further answers under cross-examination had given rise to “two new jurisdictional issues.”⁴⁵⁸

272. First, the Respondent invoked Mr. Allard’s admissions under examination concerning his motivation to buy the Sanctuary to invite the Tribunal to revisit its decision at the Jurisdictional Objections phase as to whether Mr. Allard was an investor under the BIT.⁴⁵⁹ Specifically, Mr. Allard gave the following answers to questions from the Respondent’s counsel:

Q. If you had managed to sign those contracts with the cruise ships and tour operators, and because of that, if you made your Business Plan, you made your budget, you reached your goal, the site became self-sustaining, and made a modest profit, but the sluice gate wasn’t operated the way you wanted, would you have closed the Sanctuary?

Mr. Allard: I believe so, yes.

Q. Is that what a businessman does?

Mr. Allard: When you have no control over your—the environment that’s polluting you, yes.

Q. So, a businessman, who makes his Business Plan, achieves his objectives and makes a modest profit that was his entire Business Plan, would nonetheless close his operations?

Mr. Allard: Yeah, for sure.⁴⁶⁰

273. In his rebuttal closing statement, the Claimant’s counsel contended that Mr. Allard’s answers only confirm that, as found by the Tribunal in the Award on Jurisdiction, he “had a combination of motives that included environmental conservation,” and hence to raise this issue as a new ground on closing arguments does not justify reopening the Award on Jurisdiction.⁴⁶¹

274. In its Award on Jurisdiction, the Tribunal found that “expectations of an eventual profit were honestly held by Mr. Allard when establishing the Sanctuary in 1996 and thereafter, notwithstanding that during the Sanctuary’s establishment and operations factors of profit were considered secondary and in the background to his principal motivations of environmental and public purposes.”⁴⁶² Within their context, Mr. Allard’s elaborations as to his motivations do not impugn the basis of the prior findings

⁴⁵⁸ Hearing Tr., 17 December 2015, 1587:2-6 (Respondent’s closing statement).

⁴⁵⁹ See paragraph 16 above. Hearing Tr., 17 December 2015, 1587:6:21 (Respondent’s closing statement); PowerPoint of Respondent’s closing statement at the Hearing, slide 74.

⁴⁶⁰ PowerPoint of Respondent’s closing statement at the Hearing, slides 75-76, referring to Hearing Tr., 9 December 2015, 319:14-320:3 (examination of Mr. Peter A. Allard).

⁴⁶¹ Hearing Tr., 17 December 2015, 1661:13-25 (Claimant’s closing statement).

⁴⁶² Award on Jurisdiction, ¶ 51.

where the Claimant was successful, if only just, on this issue of characterisation of his expenditures as an investment.

275. In any event, were the Tribunal of the contrary opinion, considerations of issue estoppel, or even *res judicata*, might have arisen. This possibility also falls into the ‘unnecessary to decide’ category.
276. The second additional jurisdictional issue raised by the Respondent is that Mr. Allard admitted that his claims are for future harm, while actual loss or damage are requirements for the Tribunal’s jurisdiction under Article XIII(1) of the BIT.⁴⁶³
277. The Respondent’s last submission raises the question of whether injury is a jurisdictional requirement of the BIT. It was not otherwise discussed in this arbitration, is not based on any new fact or circumstance and could, and therefore should, have been made during the jurisdictional phase of these proceedings. The fact that other findings made in this Award dispose of all the Claimant’s claims suffices to make it otiose to admit this ground for consideration.

VI. COSTS

A. RELEVANT PROVISIONS

278. Article 38 of the UNCITRAL Rules provides that “[t]he arbitral tribunal shall fix the costs of arbitration in its award” and defines such costs as follows:

The term “costs” includes only:

- (a) The fees of the arbitral tribunal to be stated separately as to each arbitrator and to be fixed by the tribunal itself in accordance with article 39;
- (b) The travel and other expenses incurred by the arbitrators;
- (c) The costs of expert advice and of other assistance required by the arbitral tribunal;
- (d) The travel and other expenses of witnesses to the extent such expenses are approved by the arbitral tribunal;
- (e) The costs for legal representation and assistance of the successful party if such costs were claimed during the arbitral proceedings, and only to the extent that the arbitral tribunal determines that the amount of such costs is reasonable;
- (f) Any fees and expenses of the appointing authority as well as the expenses of the Secretary-General of the Permanent Court of Arbitration at The Hague.

⁴⁶³ Hearing Tr., 17 December 2015, 1587:22-1588:12, 1590:2-22 (Respondent’s closing statement); PowerPoint of Respondent’s closing statement at the Hearing, slides 77-78, referring to Hearing Tr., 9 December 2015, 282:9-11 (examination of Mr. Peter A. Allard).

279. Article 40 of the UNCITRAL Rules provides for the allocation of the costs of arbitration:

1. Except as provided in paragraph 2, the costs of arbitration shall in principle be borne by the unsuccessful party. However, the arbitral tribunal may apportion each of such costs between the parties if it determines that apportionment is reasonable, taking into account the circumstances of the case.
2. With respect to the costs of legal representation and assistance referred to in article 38, paragraph (e), the arbitral tribunal, taking into account the circumstances of the case, shall be free to determine which party shall bear such costs or may apportion such costs between the parties if it determines that apportionment is reasonable.

B. COSTS OF ARBITRATION (OTHER THAN THE COSTS INCURRED BY THE PARTIES)

280. The Parties deposited with the PCA a total of \$1,200,000 (\$600,000 each) to cover the costs of the arbitration set out in Article 38(a), (b) and (c) of the UNCITRAL Rules. The costs disbursed by the PCA from that deposit break down as follows:⁴⁶⁴

TRIBUNAL	\$835,107
<u>Dr. Gavan Griffith QC</u>	\$471,277
Expenses:	\$18,297
Fees:	\$452,980
<u>Professor Andrew Newcombe</u>	\$172,250
Expenses:	\$17,593
Fees:	\$154,657
<u>Professor W. Michael Reisman</u>	\$191,580
Expenses:	\$2,355
Fees:	\$189,225
PCA	\$189,795
Expenses:	\$8,995
Fees:	\$180,800
OTHER EXPENSES (including court reporters, hearing facilities, banking costs)	\$109,421
<u>TOTAL</u>	\$1,134,323

281. Accordingly, the costs of the arbitration set out in Article 38(a), (b) and (c) of the UNCITRAL Rules amount to \$1,134,323. This leaves an unexpended balance of \$65,677 to be returned to the Parties by the PCA in equal shares.

282. No costs were incurred under Article 38(f), as neither the services of an appointing authority nor the services of the Secretary-General of the PCA were required.

⁴⁶⁴ All figures are rounded off to the nearest dollar.

C. COSTS INCURRED BY THE PARTIES

283. In summary, the costs stated as incurred by the Parties under Article 38(d) and (e) of the UNCITRAL Rules are:

	Claimant	Respondent
Costs for legal representation and assistance	<p>\$936,883</p> <p>2 lead counsel (at a time) \$614,897 \$318,388</p> <p>1 legal clerk \$3,598</p>	<p>\$5,199,894</p> <p>6 lead counsel \$1,386,546 \$1,055,450 \$952,211 \$429,555 \$410,320 \$300,456</p> <p>10 other lawyers \$665,356</p>
Disbursements for witness and expert costs	<p>\$244,929</p> <p>forensic expert \$26,641 environmental experts \$67,972 damages experts \$95,085 Chancery Chambers (Barbadian counsel) \$55,231</p>	<p>\$330,416</p> <p>forensic experts \$116,178 environmental expert \$43,839 damages experts \$153,770 Dr. Karl Watson \$16,629</p>
Other charges and disbursements	\$59,321	\$320,547
TOTAL	\$1,241,133	\$5,850,857

284. The Parties’ submissions as to costs were filed in advance of the outcome constituted by this Award, and the Tribunal has regard to these submissions as relevant to the outcome that the Claimant’s claims stand dismissed.

D. FIXING AND ALLOCATION OF COSTS

1. The Claimant’s position

285. The Claimant submits that, in the exercise of its discretionary power to award costs under Article 40,⁴⁶⁵ the Tribunal should examine the “‘success’ of a party on an issue by issue basis rather

⁴⁶⁵ Claimant’s Costs Submission, ¶¶ 5-6.

than by looking at only the final result.”⁴⁶⁶ In particular, the Claimant’s success with respect to the Jurisdictional Objections, fraud allegations and procedural issues raised by the Respondent “should be weighed together with the final outcome on the merits in any final costs award.”⁴⁶⁷

286. Specifically, the Claimant relies on the following “factors”:

- (i) the Claimant’s “victory during the lengthy and complex jurisdictional phase of the arbitration,”⁴⁶⁸ which caused the one year delay of the merits phase and the Claimant to incur substantial costs;⁴⁶⁹
- (ii) the Respondent’s “unfounded accusations of fraud . . . during the jurisdictional phase,”⁴⁷⁰ which according to State practice⁴⁷¹ and investor-State arbitration tribunals,⁴⁷² constitute procedural conduct to be sanctioned by depriving the Respondent of any award of costs that it might otherwise obtain; and⁴⁷³
- (iii) the Claimant’s “overwhelming success” on procedural issues relating to confidentiality and document production during the merits phase,⁴⁷⁴ for which the Claimant incurred “additional and unnecessary expense.”⁴⁷⁵

⁴⁶⁶ Claimant’s Costs Submission, ¶ 13, referring to *Malicorp v. Egypt*, ICSID Case ARB/08/18, Award, 7 February 2011, ¶ 147.

⁴⁶⁷ Claimant’s Costs Submission, ¶ 4.

⁴⁶⁸ Claimant’s Costs Submission, ¶ 7.

⁴⁶⁹ Claimant’s Costs Submission, ¶¶ 9-12, referring to *Patrick H. Mitchell v. Congo*, ICSID Case ARB/99/7, Award, 9 February 2004, ¶ 100; *CSOB v. Slovak Republic*, ICSID Case ARB/97/4, Award, 29 December 2004, ¶ 372; *PSEG Global Inc. v. Turkey*, ICSID Case ARB/02/5, Award, 19 January 2007, ¶ 352; *Siag v. Egypt*, ICSID Case ARB/05/15, Award, 1 June 2009, ¶ 621; *Railroad Development Corp. v. Guatemala*, ICSID Case ARB/07/23, Award, 29 June 2012, ¶ 25.

⁴⁷⁰ Claimant’s Costs Submission, ¶ 7. *See also* Claimant’s Costs Submission, ¶¶ 16-19.

⁴⁷¹ Claimant’s Costs Submission, ¶¶ 21-22, referring to Exhibits CLA-38 to CLA-41, *Hamilton v. Open Window Bakery Ltd.*, Supreme Court of Canada, 2004 SCC 9, ¶ 26; *Chen v. Chan*, Court of Appeal of the Supreme Court of Victoria (Australia), [2009] VSCA 233, ¶¶ 10, 38-39; *HIH Casualty & General Insurance Ltd. v. New Hampshire Insurance Company Limited*, Decision of the Commercial Court (England), [2006] EWCH 1285 (Comm. Ct.); *Bargman v. Rooney* (1998), 30 C.P.C. (4th) 259 (Ont. Gen. Div. [Comm. List]), ¶ 19.

⁴⁷² Claimant’s Costs Submission, ¶¶ 23-24, referring to ICC Commission Report, *Decisions on Costs in International Arbitration*, ICC Dispute Resolution Bulletin (2015), Issue 2, p. 16, ¶ 85; *Railroad Development Corp. v. Guatemala*, ICSID Case ARB/07/23, Award, 29 June 2012, ¶ 25; *Antoine Abou Lahoud v. Congo*, ICSID Case ARB/10/4, Award, 7 February 2014, ¶¶ 660-661.

⁴⁷³ Claimant’s Costs Submission, ¶¶ 20, 24.

⁴⁷⁴ Claimant’s Costs Submission, ¶¶ 7, 25-29.

⁴⁷⁵ Claimant’s Costs Submission, ¶ 30, referring to *ADC Affiliate Limited v. Hungary*, ICSID Case ARB/03/16, Award, 2 October 2006, ¶ 538; *Alphaprojektholding v. Ukraine*, ICSID Case ARB/0716, Award, 8 November 2010, ¶ 516; *Libananco v. Turkey*, ICSID Case ARB/06/8, Award, 2 September 2011, ¶ 563.

287. According to the Claimant, “each of these three factors justifies denying the Respondent any costs and ordering each party to bear its own share of both the costs of arbitration and the costs of legal representation.”⁴⁷⁶
288. Additionally, the Claimant challenges the Respondent’s incurred costs of defense as “unreasonable and grossly disproportionate to the amount in dispute”⁴⁷⁷ and for “lack of specificity,”⁴⁷⁸ as evidenced by:
- (i) the disproportion between the total amount of costs claimed by the Respondent (\$5,850,857) and the amount in dispute (approximately \$11.3 m. plus interest),⁴⁷⁹ when the median costs incurred by respondents is approximately \$2.28 m. for cases in which the amount claimed is \$491 m.;⁴⁸⁰
 - (ii) the disparity between the Respondent’s legal fees (\$5,199,894) and the Claimant’s legal fees (\$936,883), when it is generally acknowledged that claimants incur greater costs in investment arbitration;⁴⁸¹ and
 - (iii) the absence of any justification for the engagement of some sixteen lawyers,⁴⁸² the role of each lawyer,⁴⁸³ and the number of hours and costs spent on unsuccessful jurisdictional and procedural issues.⁴⁸⁴
289. These circumstances suffice for there to be no award of costs to the Respondent where (as has happened) it is successful in its defence.⁴⁸⁵

⁴⁷⁶ Claimant’s Costs Submission, ¶ 8.

⁴⁷⁷ Claimant’s Costs Submission, ¶ 2.

⁴⁷⁸ Claimant’s Costs Submission, ¶ 10.

⁴⁷⁹ Claimant’s Reply on Costs, ¶¶ 2-3, 6.

⁴⁸⁰ Claimant’s Reply on Costs, ¶ 5, referring to M. Hodgson, “Counting the costs of investment treaty arbitration”, *Global Arbitration Review*, 24 March 2015.

⁴⁸¹ Claimant’s Reply on Costs, ¶ 4, referring to M. Hodgson, “Counting the costs of investment treaty arbitration”, *Global Arbitration Review*, 24 March 2015.

⁴⁸² Claimant’s Reply on Costs, ¶¶ 11-12, 16.

⁴⁸³ Claimant’s Reply on Costs, ¶¶ 13, 16.

⁴⁸⁴ Claimant’s Reply on Costs, ¶¶ 7, 9-10. *See also* Claimant’s Reply on Costs, ¶ 8, referring to *Daimler Financial Services AG. v. Argentina*, ICSID Case ARB/05/1, Award, 22 August 2012, ¶ 284; *Brandes v. Venezuela*, ICSID Case ARB/08/3, Award, 2 August 2011, ¶ 119.

⁴⁸⁵ Claimant’s Reply on Costs, ¶¶ 1, 17.

2. The Respondent's position

290. The Respondent submits that the “‘loser pays’ principle” embraced by Article 40 of the UNCITRAL Rules requires the Tribunal to identify Barbados as the successful party “of the case as a whole,”⁴⁸⁶ and that the Claimant “should be ordered to cover the entirety of the costs incurred by the Respondent,”⁴⁸⁷ including its costs of legal representation and assistance.⁴⁸⁸
291. According to the Respondent, there are no compelling circumstances in this case that would require the Tribunal to depart from the “‘loser pays’ principle.”⁴⁸⁹ In particular, the Respondent argues that:
- (i) there was no “victory” for the Claimant on the Jurisdictional Objections phase, as “the very essence of the Claimant’s case” was reserved for determination in the merits phase;⁴⁹⁰
 - (ii) neither at the jurisdictional phase nor at the merits phase has the Claimant discharged his burden of proof in relation to the Tribunal’s jurisdiction;⁴⁹¹
 - (iii) the Respondent’s procedural conduct during the jurisdictional phase was “perfectly legitimate, objectively justifiable and, in light of the fundamental shortcomings in the Claimant’s evidence, necessary”;⁴⁹²
 - (iv) the Claimant’s intention to conduct a “trial by press release” forced the Respondent to expend significant resources⁴⁹³ and had the potential to “threaten the procedural integrity of the proceedings,”⁴⁹⁴ and therefore, the Claimant’s reliance on the Tribunal’s decision on confidentiality must be dismissed;⁴⁹⁵ and
 - (v) the procedural issues relating to document production only serve to establish that the Claimant’s case is “frivolous and speculative.”⁴⁹⁶

⁴⁸⁶ Respondent’s Reply on Costs, ¶ 5. *See also* Respondent’s Reply on Costs, ¶ 7.

⁴⁸⁷ Respondent’s Reply on Costs, ¶ 3.

⁴⁸⁸ Respondent’s Reply on Costs, ¶ 8.

⁴⁸⁹ Respondent’s Reply on Costs, ¶ 7.

⁴⁹⁰ Respondent’s Reply on Costs, ¶ 9.

⁴⁹¹ Respondent’s Reply on Costs, ¶¶ 12-14, 18-20.

⁴⁹² Respondent’s Reply on Costs, ¶¶ 22.

⁴⁹³ Respondent’s Reply on Costs, ¶ 26.

⁴⁹⁴ Respondent’s Reply on Costs, ¶ 27.

⁴⁹⁵ Respondent’s Reply on Costs, ¶ 25.

⁴⁹⁶ Respondent’s Reply on Costs, ¶ 36. *See also* Respondent’s Reply on Costs, ¶¶ 30-32.

292. Overall, the Respondent argues that it was its duty “as sovereign State”⁴⁹⁷ to challenge “the Claimant’s case as pleaded”⁴⁹⁸ as well as “to bring to the Tribunal’s attention the manifest flaws in the Claimant’s case.”⁴⁹⁹ Thus, if the Claimant’s case is dismissed, whether on jurisdiction or on the merits, the Claimant should bear all of Respondent’s costs.⁵⁰⁰
293. In addition, the Respondent identifies further grounds that justify an award of costs in its favour, including:
- (i) the Claimant’s “shifting argumentation” throughout this arbitration;⁵⁰¹
 - (ii) the Claimant’s “out-of-turn surrejoinder” submitted prior to the hearing on jurisdiction and the merits;⁵⁰² and
 - (iii) the excessive number of witness statements and expert reports submitted by the Claimant.⁵⁰³
294. Finally, it is the Respondent’s position that its legal costs are reasonable and comparable to amounts spent by other respondents in investor-State arbitration proceedings.⁵⁰⁴

3. The Tribunal’s analysis

295. In exercising the discretion accorded it by Articles 38 and 40 the UNCITRAL Rules to fix the costs of arbitration and apportion them between the Parties, the Tribunal is directed to apply the principle of reasonableness in light of all the circumstances of the case.
296. Under the “costs follow the event” principle, a costs order would be made in favour of the Respondent. The Respondent has, indeed, prevailed on all merits issues, including the many and diverse factual issues raised for determination, and also the allegations of breach of BIT obligations.
297. However, different considerations may apply to the disposition of different categories of costs.

⁴⁹⁷ Respondent’s Reply on Costs, ¶ 12.

⁴⁹⁸ Respondent’s Reply on Costs, ¶ 15.

⁴⁹⁹ Respondent’s Reply on Costs, ¶ 12.

⁵⁰⁰ Respondent’s Reply on Costs, ¶¶ 3, 23.

⁵⁰¹ Respondent’s Reply on Costs, ¶¶ 3, 40.

⁵⁰² Respondent’s Reply on Costs, ¶ 37-38.

⁵⁰³ Respondent’s Reply on Costs, ¶¶ 41-42.

⁵⁰⁴ Respondent’s Reply on Costs, ¶ 45, referring to “How much Does an ICSID Arbitration Cost? A Snapshot of the Last Five Years”, *Kluwer Arbitration Blog*, 29 February 2016.

298. *Costs of arbitration (other than the costs of the Parties)*. The Tribunal's view is that these costs should follow the ultimate event, and the Respondent's share of costs advanced be recouped from the Claimant. As the successful party, the Respondent has been "forced to go through the process in order to achieve success, and should not be penalised by having to pay for the process itself."⁵⁰⁵
299. As noted in paragraphs 280-281 above, the costs of arbitration (other than the costs of the Parties) amount to \$1,134,323, of which the Respondent contributed half (\$567,162). Accordingly, the Claimant should reimburse this amount to the Respondent.
300. *Costs of the Parties' witnesses and experts*. With the exception of the costs arising from the Respondent's application for the forensic inspection of evidence submitted by the Claimant, the Tribunal considers it appropriate for the Claimant to bear the costs arising from the Respondent's presentation of witnesses and experts. The Tribunal accepts that these witnesses and experts were necessary for the Respondent to defend against the Claimant's claims.
301. In contrast, the evidence of the forensic experts running to allegation of forgery ended in an impasse, except to the limited extent that the Parties' respective forensic experts were able to reach agreement.⁵⁰⁶ The Tribunal finds that the Respondent should bear all costs of forensic experts, in the amount of \$142,819 (including \$26,641 for the Claimant's forensic expert and \$116,178 for the Respondent's own experts).
302. Accordingly, the Claimant should reimburse the Respondent \$214,238, being claimed costs less \$116,178.
303. *Costs of Jurisdictional Objections*. The Tribunal also is of the view that some allowance for costs in the Respondent's favour should be made for its costs of the Jurisdictional Objections, in the context that it accepts it was reasonable for the Respondent to raise the "no investment" issue, where the Claimant prevailed, "but only just." Also, the Tribunal accepts that it was reasonable for the Respondent to raise the limitation objection even though it was held over to the merits phase (see Section V.C above).
304. *Proportionality Issue*. The vast disproportion between the Parties' professional costs calls for closer examination.
305. A State is entitled to full legal service and to incur such legal costs it regards as appropriate for its defence to a BIT claim. However, it does not follow that by reason of being incurred as part of

⁵⁰⁵ *SD Myers, Inc. v. Government of Canada*, UNCITRAL, Final Award on Costs, 30 December 2002, ¶ 15.

⁵⁰⁶ Joint Forensic Expert Report by the Claimant's expert and the Respondent's experts dated 6 February 2014, ¶ 44.

mounting a successful defence all such professional costs and expenses fall to be recouped from the unsuccessful party on an indemnity basis.

306. The Tribunal is inclined to agree with the statement of the *Libananco v. Turkey* tribunal that:

A party with a deep pocket may have its own justification for heavy spending, but it cannot expect to be reimbursed for all its expenditure as a matter of course simply because it is ultimately the prevailing party.⁵⁰⁷

307. Here, the Respondent was entitled to defend its interests vigorously, especially within the context of the Claimant's raising exhaustively many and all factual issues enlisted to support his dense factual case. In raising these fact particulars, it became reasonable for the Respondent to mobilize sufficient resources for refutation.

308. Of greater moment are the issues of proportionality and disparity.

309. First, and without analyzing the Claimant's damages claims, which do not call for determination, the Respondent's costs of legal representation are about 20% of the amount in dispute, including interest.

310. Second is the issue of disparity. The Claimant fielded a lean team of two counsel to carry the reference. That was his option, and no reason in itself to confine the Respondent to a corresponding number. For its part, the Respondent engaged six lead counsel, three of whom each had professional fees equal to the entire professional costs incurred by the Claimant; the total of all six is almost five times the comparable Claimant's counsel's fees. Beyond this, a further ten lawyers had costs of some \$665,000.

311. The number of counsel and hours for which they have been engaged raise squarely the *Libananco* issue, noted in paragraph 306 above, of whether the costs incurred and claimed should fall to be reimbursed to the prevailing party merely because they have been incurred.

312. The Tribunal's approach is not to engage in a superficial assessment as to whether the Respondent's costs incurred in its defence were excessive or unreasonable. Rather, the Tribunal is concerned to fix the proportion of these costs that appear reasonable for the Claimant to be ordered to bear having regard to all the factors noted above.

313. Balancing these competing factors, the decision of the Tribunal is to cap the Respondent's recoverable professional costs claimed of almost \$5.2 m. at \$2.25 m.

314. *Other discretionary allowances.* Taking account also of the several other allowances which the Tribunal determines to abate the Claimant's costs on some issues, and also correspondingly to make

⁵⁰⁷ *Libananco v. Turkey*, ICSID Case No. ARB/06/8, Award, 2 September 2011, ¶ 565.

some allowance in credits referable to some of the Claimant's costs, the Tribunal also abates from the addition of the items and amounts stated above to be allowed as costs the further amount of \$250,000.

315. Accordingly the amount of costs ordered to be paid by the Claimant to the Respondent is fixed at \$2,508,144, made up of:

1 Respondent's witness and expert costs as allowed	\$214,238
2 Respondent's other charges and disbursements	\$320,547
3 Respondent's professional costs as allowed	\$2,250,000
Total	\$2,784,785
LESS \$250,000 allowance	
LESS \$26,641 for Claimant's forensic expert	
TOTAL	\$2,508,144

316. *Conclusion:* The Claimant shall reimburse the Respondent an amount of \$567,162 as its costs of arbitration other than costs incurred by the Parties, and an amount of \$2,508,144 in respect of costs incurred by the Parties.

AWARD

For the reasons set forth above, the Tribunal:

- A. DISMISSES the Claimant's claims.**
- B. ORDERS the Claimant to pay to the Respondent the amounts of –**
 - (a) USD 567,162 for the costs of arbitration; and**
 - (b) USD 2,508,144 for its costs.**



MICHAEL REISMAN



ANDREW NEWCOMBE



GAVAN GRIFFITH

DATED 21 June 2016