

#### NATIONAL ENVIRONMENT & PLANNING AGENCY

10 & 11 Caledonia Avenue, Kingston 5, Jamaica W.I. Tel: (876) 754-7540/3 Fax: (876) 754-7595-6 Tollfree: 1-888-991-5005 E-mail: ceo@nepa.gov.jm, Website: http://www.nepa.gov.jm

#### THE BEACH CONTROL ACT FOR THE USE OF THE FORESHORE AND THE FLOOR OF THE SEA (PURSUANT TO SECTION 11 OF THE BEACH CONTROL ACT 1956)

THE NATURAL RESOURCES CONSERVATION AUTHORITY (hereinafter "the Authority") hereby grants NATIONAL WORKS AGENCY (hcreinafter "the Licensee") of 140 MAXFIELD AVENUE, KINGSTON 10 in the parish of ST. ANDREW in accordance with and subject to the provisions of the Beach Control Act 1956 and the Regulations made thereunder A LICENCE (hereinafter "the Licence") to encroach on the foreshore and floor of the sea at LONG BAY situate at NEGRIL in the parish of WESTMORELAND (hereinafter "the Licensed Area") more particularly described in the First Schedule hereto for the following purpose (hereinafter "the Works"):

#### CONSTRUCTION AND MAINTENANCE OF TWO BREAKWATERS

This Licence is granted subject to the provisions of the Specific Conditions and General Conditions contained in the Second and Third Schedules hereunder and shall expire on the 31 day of March in the Year 2015. This Licence shall not be transferable.

DATED this

day of November

LICENCE NO.: L3448A

THAMANI SMITH SECRETARY

#### FIRST SCHEDULE

Construction and maintenance of two (2) breakwaters on that portion of the foreshore and floor of the sea at LONG BAY, NEGRIL in the parish of WESTMORELAND which abuts East on the Caribbean Sea, West on the Caribbean Sea, North on the Caribbean Sea and South on the Caribbean Sea as stated on the beach licence application dated 25 January 2013 bearing the application Number 2013-10017-BL00003 received and date stamped by the Natural Resources Conservation Authority 25 January 2013.

#### SECOND SCHEDULE

#### Definitions

"Licensee" means the holder of this Licence.

"Authority" means the Natural Resources Conservation Authority established pursuant to S.3 of the Natural Resources Conservation Authority Act.

"Agency" means the National Environment and Planning Agency established pursuant to S.4 of the Executive Agencies Act.

"Representation" means any information implied or express on which the Authority has relied to grant this Licence and includes all the information contained in the Application Form and the Environmental Impact Assessment Report where applicable, addenda and all supplementary documentation and information including but not limited to correspondence.

The Licensee hereby undertakes to comply with all of the following terms and conditions:

#### GENERAL CONDITIONS

- 1. This Licence is granted for a period beginning on the date of issue herein and shall expire on the 31st day of March in the year 2015.
- 2. Any member of the Authority or any officer authorized in writing on its behalf may, during the continuance of this Licence, make such periodical inspections of and investigations concerning the Licensed Area and of the land adjacent to such area within the control of the Licensee as may be necessary for the purpose of ascertaining whether the terms and conditions of this Licence are being observed or not and the Licensee shall allow the authorized officer to carry out the said inspections and investigations.
- 3. The Licensee may renew this Licence annually by submitting the appropriate fee no later than February 15 of each year to the Manager, the Accounts Branch, National Environment and Planning Agency, 10 Caledonia Avenue, Kingston 5. On receipt of this fee (subject to the Works having been carried out in accordance with the terms and conditions herein) a Renewal Certificate may be issued by the Authority.
- 4. The Authority may, in its sole discretion, revoke or suspend this Licence for any breach of the general or specific conditions.
- 5. The Licensee hereby agrees that it will be responsible for any work carried out pursuant to this Licence including the works of contractors, agents and any other third party.
- 6. The Authority may initiate legal or administrative actions for any violation of any of the terms and conditions set forth herein.
- 7. During the period of this Licence the Authority reserves the right to review this Licence periodically and alter, amend or introduce new terms and conditions to the provisions herein.
- 8. The failure of the Authority to enforce at anytime, or for any period, any one or more of the terms and conditions of this Licence shall not be considered a waiver of such terms and conditions or the waiver of the right at any time subsequent to enforce all the terms and conditions of this Licence.
- 9. The Licensee shall not assign, dispense with or transfer this Licence or part with any benefit arising from it or grant any sub-licence under it.
- 10. This Licence is granted subject to any existing legal rights of third parties or any order of any Court granting any right of user over the Licensed Area or adjoining land.
- 11. No sign or notice may be erected or placed upon or in the Licensed Area unless the size, wording and location thereof have previously been approved in writing by the Authority.
- 12. The Licensee shall, prior to the commencement of the licensed activity, post a sign in a prominent place on the licensed area using the same design and words as set out in the Fourth Schedule of this License.

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- 13. The Licensee and/or its agents shall maintain the breakwaters and associated structures in good repair to the satisfaction of the Authority
- 14. Should this Licence be revoked for any reason the Authority reserves the right to itself, its servants and its agents to enter on the Licensed Area and any adjoining lands in the control of the Licensee and demolish and/or remove the encroachments and to recover from the said Licensee all costs and expenses incurred if the said Licensee does not within 30 days after Notice of Revocation is published in the Jamaica Gazette remove the said encroachments.
- 15. The discharge of oil, oily waste, trade or sewage effluent, chemicals, solid waste, poisonous, noxious or polluting substances into the Licensed Area from any vessel or equipment supporting the activity is prohibited.
- 16. The Licensec and/or its agents shall not remove or permit the removal of sand from the Licensed Area without the prior written approval of the Authority.
- 17. Subsequent to the grant of this Licence, the construction and maintenance of the breakwaters and associated structures shall neither be altered nor removed nor other encroachment constructed without the prior written approval of the Authority.
- 18. Where any mitigatory measure taken to minimize turbidity in waters is impractical or ineffective or becomes impractical as a result of abnormal weather or sea conditions, the Works shall be suspended until the weather conditions and ocean parameters return to normality.
- 19. The Licensee shall not modify the physical nature of the Licensed Area or construct or carried out any modification in connection with the Licensed Area except under a Licence granted by the Authority pursuant to the Beach Control Act.
- 20. The construction and maintenance of the breakwaters and associated structures shall be performed under the supervision of professional personnel, who are qualified and competent to carry out coastal engineering works and who are conversant with the accompanying safety requirements and the hazards to employees, the public and the environment.
- 21. The Licensce shall execute a Deed of Indemnity, indemnifying the Authority and the Government of Jamaica against all actions, proceedings, claims, losses, damages, injuries, demands, costs and expenses which may become payable by the Authority or the Government of Jamaica as a result of the Works.

#### Specific Conditions

- 1. The Licensee shall comply with all the representations made in the application number 2013-10017-BL00003 dated 25 January 2013 received and date stamped 25 January 2013 by the Natural Resources Conservation Authority; documents titled "Original Engineering Design Report Break Water Structures Offshore Negril, Westmoreland Jamaica" dated January 2014 received and date stamped 19 March 2014 by the Natural Resources Conservation Authority, "Environmental Impact Assessment For The Construction Of Two Breakwaters At Long Bay Negril, Westmoreland" dated November 2014 received and date stamped 19 November 2014 by the Natural Resources Conservation Authority, "Specifications Negril Breakwater Project Supply and Placement Tender Document" and "Specifications Negril Breakwater Project Supply Tender Document" both received and date stamped 13 October 2014 by the Natural Resources Conservation Authority; letter dated 21 May 2014 from CL Environmental signed by Carlton Campbell received and date stamped 22 May 2014 by the Natural Resources Conservation Authority, letter dated 15 September 2014 from National Works Agency signed by Andrew Sturridge received and date stamped 16 September 2014 by the Natural Resources Conservation Authority (and accompanying document), letter dated 1 October 2014 by E. G. Hunter from National Works Agency received and date stamped 18 October 2014by the Natural Resources Conservation Authority and any accompanying addenda.
- 2. The Licensee shall ensure that all correspondence, notifications, plans, reports or any other documents being submitted to the Agency pursuant to any General and/or Specific Condition of the Licence are addressed to Manager, Enforcement Branch, National Environment and Planning Agency, 10 Caledonia Avenue, Kingston 5 and can be submitted mail and/or email at <a href="mailto:EnforcementManager@nepa.gov.im">EnforcementManager@nepa.gov.im</a>.
- 3. The Licensee shall notify the Manager, Enforcement Branch of the National Environment and Planning Agency, 10 Caledonia Avenue, Kingston 5 or email: <a href="mailto:EnforcementManager@pepa.gov.im">EnforcementManager@pepa.gov.im</a>, in writing of the date of commencement of the Works at least seven (7) working days prior to commencement so that these activities can be monitored.
- 4. The Licensee shall, in writing, notify the Hotel and Watersports Operators of Norman Manley Boulevard and Lighthouse Road, of the route to be taken by the barge and the proposed times of operation, prior to

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- the commencement of the works. A copy of each correspondence shall be submitted to the Manager, Enforcement Branch, National Environment and Planning Agency 10 Caledonia Avenue, Kingston 5, or emailed: <a href="mailto:EnforcementManager@nepa.gov.im">EnforcementManager@nepa.gov.im</a>, prior to the commencement of the works.
- 5. The Licensee and/or its agents shall ensure that there is no extraction of water from the South Negril River except with the expressed written approval of the Water Resources Authority. If approved, a copy of the approval shall be submitted to the Manager, Enforcement Branch, National Environment and Planning Agency 10 Caledonia Avenue, Kingston 5, or emailed: <a href="mailto:EnforcementManager@nepa.gov.jm">EnforcementManager@nepa.gov.jm</a>, prior to the commencement of extraction activities.
- 6. The Licensee shall ensure that there is no de-silting or alteration of the South Negril River for any activity in respect of the construction of the Breakwaters.
- 7. The Licensee and/or its agents shall erect and maintain continuous sediment control devices (silt curtain, bubble curtain) around the Licensed Area at least 3.0m in depth (where the depth at the Licensed Area is greater than 3.0m), to restrict and control the movement of and to prevent the escape of sediment generated by the Works into the adjacent marine environment before the commencement of the Works.
- 8. The sediment control devices (silt curtain, bubble curtain) deployed as per Specific Condition 7 above shall remain in place until turbidity values within and around 10 metres of the Licensed Area fall below 15 NTUs or ambient conditions outside the cordoned off area, whichever is higher.
- 9. In the event that the sediment control devices (silt curtain, bubble curtain) outlined in Specific Condition 7 are damaged, destroyed or otherwise rendered ineffective by waves, currents and/or other meteorological events, the Works shall be suspended until the disturbance has passed and the necessary repairs are carried out.
- 10. Prior to hurricanes or tropical storms work shall be halted and turbidity values allowed to fall below 15 NTUs or ambient conditions, whichever is bigher. Sediment control devices shall then be removed and the Licensed Area adequately secured to prevent any undue runoff into the adjacent marine environment.
- 11. The Licensee shall submit to the Manager, Enforcement Branch (email: <u>EnforcementManager@nepa.gov.jm</u>), National Environment and Planning Agency, 10 Caledonia Avenue, Kingston 5, a Waste Management plan within thirty (30) days of the date of issue of this License.
- 12. The Licensee shall ensure that the solid waste generated from the construction and maintenance activity is disposed of at a municipal dumpsite and shall obtain the approval of the National Solid Waste Management Authority (NSWMA) prior to such disposal. A copy of the approval from the NSWMA shall be submitted to the Manager, Enforcement Branch, National Environment and Planning Agency 10 Caledonia Avenue, Kingston 5 or emailed: EnforcementManager@nepa.gov.jm prior to the commencement of the Works.
- 13. The Licensee and/or its agents shall ensure that there is no blasting or use of explosives in the Licensed Area.
- 14. The Licensee and/or its agents shall not permit the discharge of waste, including but not limited to sullage waste, solid waste, oil, oily waste, trade or sewage effluent, chemicals or any poisonous noxious or polluting matter into the water or on the ground.
- 15. The Licensee shall immediately notify the Manager, Enforcement Branch (email: Enforcement Manager@nepi.gov.jm), National Environment and Planning Agency, 10 Caledonia Avenue, Kingston 5 of any spillage of or accident with any hazardous chemicals, inclusive of all hydrocarbons and environmentally damaging material and shall report on the clean-up activities as per MARPOL 73/78, Annex I, Regulation 26 within twenty-four (24) hours of the incident
- 16. The Licensee and/or its shall ensure that there is no refuelling of any marine vessel associated with the construction of the breakwaters at the Licensed Area except in areas specifically designated as such and which are subject to the relevant Licenses required.
- 17. The Licensee and/or its agents shall not crect any lighting or signage on the encroachments created save and except for markers to alert marine vessels to the presence of the encroachments as required by the relevant authorities including the Port Authority of Jamaica and the Maritime Authority.
- 18. Any sensitive organisms, including but not limited to corals (which are not located on "pavement" substrate), seagrass and associated invertebrates (urchins, star fish, sea cucumber), found within the Licensed Area shall be relocated to an undisturbed area on the floor of the sea immediately adjoining the Licensed Area, prior to commencing the Works, to the satisfaction of the Authority.

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- 19. Pursuant to Specific Condition 18 above, the Licensee shall ensure that any coral of the Acropora sp. found within the Licensed area, regardless of substrate, shall be relocated to an undisturbed area on the floor of the sea immediately adjoining the Licensed Area, prior to commencing the Works, subject to Specific Condition 25, to the satisfaction of the Authority.
- 20. The Licensec shall submit an Operation and Maintenance Plan for the equipment to be used to carry out the works, to the Manager, Enforcement Branch, National Environment and Planning Agency 10 Caledonia Avenue, Kingston 5, or emailed to EnforcementManager@nepa.gov.im, for the approval of the Authority, within thirty (30) days of the date of issue of this Licence. This Plan shall include but not be limited to contingencies in the event of a malfunction of any of the equipment.
- 21. The Licensce shall ensure that the boulders used for the construction of the breakwaters are obtained from a Licensed Quarry. A copy of the Licence shall be submitted to the Manager, Enforcement Branch, National Environment and Planning Agency 10 Caledonia Avenue, Kingston 5, or emailed to EnforcementManager@nepa.gov.jm, no less than fourteen (14) days prior to the commencement of the works.
- 22. The Licensec shall ensure that all construction activities are carried out between the hours of 9:00 a.m. and 5:00 p.m. from Mondays to Saturdays. There shall be no construction activity on Sundays and Public Holidays. Any work to be done outside of this period will require the explicit written permission of the Authority.
- 23. The Licensee shall submit a Maintenance Plan for the encroachments to the Manager, Enforcement Branch, National Environment and Planning Agency 10 Caledonia Avenue, Kingston 5, or emailed to EnforcementManager@nepa.gov.jm,, for the approval of the Authority, within thirty (30) days of the date of issue of this Licence.
- 24. The maintenance of the encroachments shall be in accordance with the Natural Resources Conservation Authority's Guidelines for the Planning, Construction and Maintenance of Facilities for Enhancement and Protection of Shorelines, a copy of which can http://www.nepa.gov.jm/symposia\_03/Policies/Guidelines\_ProtectionShore.pdf.
- 25. The Licensee shall undertake and submit weekly monitoring reports to the Manager, Enforcement Branch, National Environment and Planning Agency 10 Caledonia Avenue, Kingston 5, or emailed to EnforcementManager@nepa.gov.jm, of the construction and maintenance works. This monitoring report shall include, but shall not be limited to:
  - The date, exact place and time of sampling or measurement for water quality inclusive of ambient water turbidity and turbidity during construction and maintenance works;
  - b) The person(s) responsible for performing the sampling or measurement;
  - The date(s) analyses were performed; and c)
  - d) The analytical techniques for methods used.
- 26. All equipment, left over materials, equipment parts and any other material incidental to the construction or maintenance activity shall be dismantled and removed from the floor of the sea and from shore based facilities at the completion of the activity and in any event, prior to the expiry of this Licence.

#### 27. Coral and Seagrass Relocation

- The Licensee shall prepare for the approval of the Authority at least one (I) month prior to the commencement of the works, a Coral Relocation Plan. This shall include but is not limited to:
  - a. The georeferenced location, size and pictures of all corals to be relocated;
  - b. A rationale for the exclusion of any individuals/colonies which will not be relocated;

  - c. The georeferenced location and pictures of the proposed coral relocation sites;
    d. Detailed methodology for the relocation of corals, including methods for harvesting, transporting and replanting/anchoring;
  - e. Existing physicochemical conditions at the construction site and proposed relocation site including nutrients, light, salinity, temperature, waves, currents, sediment depth and sediment
  - Statement of existing anthropogenic impacts at both the dredge site and proposed relocation site;
  - A proposed schedule for the completion of the works;
  - h. Proposed sediment control mechanism;
  - The name and credentials of the qualified professional or entity conducting the relocation at each
  - Sample format for monitoring reports.
- ii. The Licensec shall demarcate the working footprint of each relocation (receptor) site and shall ensure that the sites are adequately prepared for reception of corals.
- iii. The Licensee shall not commence relocation until the prepared area as per specific condition ii has been inspected and approved by the Authority.

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- iv. The Licensee shall erect suitable sediment control devices around the construction site and at each relocation site where the bathymetry is to be modified by infilling or other deposition activities.
- v. The Licensee shall apply for permission to deploy any encroachment which may be necessary to modify the existing conditions at the receptor sites in preparation for relocation of corals.
- vi. The License shall ensure that the coral colonies being relocated are stored with no less than 10cm of space between each unit to prevent competition.
- vii. The Licensee shall inform the Agency in writing, within five (5) working days of completion of each relocation activity, per site, to allow for inspection of the area.
- viii. The Licensee shall ensure that the qualified professional hired to supervise the relocation works conducts a training of not less than one (1) day inclusive of field and lecture sessions for all persons to be used to do the relocation of both corals and seagrass.
- ix. The Licensee shall inform the Agency in writing of changes in the qualified professional or entity that is to supervise the relocation activity.
- x. The Licensee shall ensure that detailed daily logs of the relocation activities are maintained and submitted to the Agency within 7 working days of completion of each site. Daily logs are to include, but should not be limited to the following:
  - a. The location and total number of each coral species harvested and anchored (receptor site);
  - a. The location and total number of each coral speb. Dated photographic evidence of all works; and
  - c. A gridded map of donor and receptor sites showing daily coral relocation activities.
- xi. The Licensee shall submit a minimum of five (5) monitoring reports on the status of the relocated corals for a period of not less than one year subject to the following schedule:
  - a. Thirty days after the completion of relocation works at each site (time zero for each phase and site);
  - b. Quarterly (every three months) thereafter.
- xii. Pursuant to specific condition x above, the monitoring report shall include but not be limited to:
  - a. The name(s) of the person responsible for monitoring;
  - b. Location of relocation sites;
  - c. Photographs showing progression at the relocation sites over time;
  - d. Time and date of monitoring and analysis;
  - e. Description as needed of supplemental planting activities conducted and the georeferenced locations of these;
  - f. Fish counts in the replanted areas; and
  - g. An indication on the current status, percentage survival and success of the relocated corals to include:
    - i. Water quality (suspended solids and nutrients);
    - ii. Aerial extent and coverage over time using photographic inventory (annual aerial/satellite imagery coinciding with the reporting period);
    - iii. Bioturbation and causes; and
    - iv. Qualitative assessment of natural recruitment and expansion by relocated units.
- xiii. The Licensee shall be liable and responsible for all planting sites until the targeted goal within the restoration areas of 65% areal coverage due only to the planting units or 80% total coverage (including natural recruitment and other species providing coverage) is met.
- xiv. The Licensee shall ensure that any coral colonies which are fragmented during the relocation works are relocated in their entirety.
- 28. The granting of this Licence does not relieve the Licensee from complying with any other statutory obligation or from applying for and obtaining any permission, certification, permit or licence required by law. These include but are not limited to Building Permission under the Building Act, Planning Permission under the Town and Country Planning Act and Environmental Permits and Environmental Licences under the Natural Resources Conservation Authority Act.

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### THIRD SCHEDULE

- A. On collection of the Licence, the initial licensing fee of \$50,000.00 (2 breakwaters @ \$25,000.00 each) is to be paid
- B. An Annual renewal fee of \$20,000.00 may be paid in order to renew this licence in accordance with the provisions of this Licence. This sum shall be paid no later than February 15 of each year.

PLEASE NOTE CAREFULLY: ALL LICENCES THAT HAVE NOT BEEN RENEWED BY 31 MARCH OF EACH YEAR BECOME INVALID AND WOULD NECESSITATE A NEW APPLICATION.

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## NATIONAL ENVIRONMENT & PLANNING AGENCY

10 & 11 Caledonia Avenue, Kingston 5, Jamaica W.I. Tel: (876) 754-7540/3 Fax: (876) 754-7595-6 Tollfree: 1-888-991-5005 E-mail: ceo@nepa.gov.jm, Website: http://www.nepa.gov.jm

# THE BEACH CONTROL ACT FOR THE USE OF THE FORESHORE AND THE FLOOR OF THE SEA (PURSUANT TO SECTION 11 OF THE BEACH CONTROL ACT 1956)

THE NATURAL RESOURCES CONSERVATION AUTHORITY (hereinafter "the Authority") hereby grants NATIONAL WORKS AGENCY (hereinafter "the Licensee") of 140 MAXFIELD AVENUE, KINGSTON 10 in the parish of ST. ANDREW in accordance with and subject to the provisions of the Beach Control Act 1956 and the Regulations made thereunder A LICENCE (hereinafter "the Licence") to encroach on the foreshore and floor of the sea at LONG BAY situate at NEGRIL in the parish of WESTMORELAND (hereinafter "the Licensed Area") more particularly described in the First Schedule hereto for the following purpose (hereinafter "the Works"):

# TO CARRY OUT COASTLINE RECLAMATION WORKS USING 3,339 CUBIC METRES OF MATERIAL

This Licence is granted subject to the provisions of the Specific Conditions and General Conditions contained in the Second and Third Schedules hereunder and shall expire on the 31 day of March in the Year 2015. This Licence shall not be transferable.

DATED this 25th

day of November 2014

LICENCE NO.: L3448B

JOHN JUNOR CHAIRMAN

THAMANI SMITH SECRETARY

### FIRST SCHEDULE

To carry out coastline reclamation works using Three Thousand, Three Hundred and Thirty Nine (3,339 m³) cubic metres of material—on that portion of the foreshore and floor of the sea at LONG BAY, NEGRIL in the parish of WESTMORELAND which abuts East on lands in the possession of Commissioner of Lands, West on the Caribbean Sea, North on the South Negril River and South on the Caribbean Sea as stated on the beach licence application dated 25 January 2013 bearing the application Number 2013-10017-BL00003 received and date stamped by the Natural Resources Conservation Authority 25 January 2013.

#### SECOND SCHEDULE

#### Definitions

"Licensee" means the holder of this Licence.

"Authority" means the Natural Resources Conservation Authority established pursuant to S.3 of the Natural Resources Conservation Authority Act.

"Agency" means the National Environment and Planning Agency established pursuant to S.4 of the Executive Agencies Act.

"Representation" means any information implied or express on which the Authority has relied to grant this Licence and includes all the information contained in the Application Form and the Environmental Impact Assessment Report where applicable, addenda and all supplementary documentation and information including but not limited to correspondence.

The Licensee hereby undertakes to comply with all of the following terms and conditions:

#### GENERAL CONDITIONS

- 1. This Licence is granted for a period beginning on the date of issue herein and shall expire on the 31<sup>st</sup> day of March in the year 2015.
- 2. Any member of the Authority or any officer authorized in writing on its behalf may, during the continuance of this Licence, make such periodical inspections of and investigations concerning the Licensed Area and of the land adjacent to such area within the control of the Licensee as may be necessary for the purpose of ascertaining whether the terms and conditions of this Licence are being observed or not and the Licensee shall allow the authorized officer to carry out the said inspections and investigations.
- 3. The Authority may, in its sole discretion, revoke or suspend this Licence for any breach of the general or specific conditions.
- 4. The Licensee hereby agrees that she will be responsible for any work carried out pursuant to this Licence including the works of contractors, agents and any other third party.
- 5. The Authority may initiate legal or administrative actions for any violation of any of the terms and conditions set forth herein.
- 6. During the period of this Licence the Authority reserves the right to review this Licence periodically and alter, amend or introduce new terms and conditions to the provisions herein.
- 7. The failure of the Authority to enforce at anytime, or for any period, any one or more of the terms and conditions of this Licence shall not be considered a waiver of such terms and conditions or the waiver of the right at any time subsequent to enforce all the terms and conditions of this Licence.
- 8. The Licensee shall not assign, dispense with or transfer this Licence or part with any benefit arising from it or grant any sub-licence under it.
- 9. This Licence is granted subject to any existing legal rights of third parties or any order of any Court granting any right of user over the Licensed Area or adjoining land.
- 10. No sign or notice may be erected or placed upon or in the Licensed Area unless the size, wording and location thereof have previously been approved in writing by the Authority.
- 11. The Licensee shall, prior to the commencement of the licensed activity, post a sign in a prominent place on the licensed area using the same design and words as set out in the Fourth Schedule of this Licence.
- 12. The discharge of oil, oily waste, trade or sewage effluent, chemicals, solid waste, poisonous, noxious or polluting substances into the Licensed Area from any vessel or equipment supporting the activity is prohibited.
- 13. The Licensee and/or its agents shall not remove or permit the removal of sand from the Licensed Area without the prior written approval of the Authority.
- 14. Subsequent to the grant of this Licence, the Licensed Area shall not be altered nor any encroachment constructed without the prior written approval of the Authority.

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- 15. Where any mitigatory measure taken to minimize turbidity in waters is impractical or ineffective or becomes impractical as a result of abnormal weather or sea conditions, the Works shall be suspended until the weather conditions and ocean parameters return to normality.
- 16. The Licensee shall not modify the physical nature of the Licensed Area or construct any foreshore modification in connection with the Licensed Area except under a Licence granted by the Authority pursuant to the Beach Control Act.
- 17. The coastline reclamation works shall be performed under the supervision of professional personnel, who are qualified and competent to carry out coastal engineering works and who are conversant with the accompanying safety requirements and the hazards to employees, the public and the environment.
- 18. Vessels to be moored and pipelines to be laid in support of the coastline reclamation works within the Licensed Area shall be so deployed that they shall not present a danger to sensitive benthic features such as coral reefs.
- 19. The Licensee shall execute a Deed of Indemnity, indemnifying the Authority and the Government of Jamaica against all actions, proceedings, claims, losses, damages, injuries, demands, costs and expenses which may become payable by the Authority or the Government of Jamaica as a result of the Works.

#### SPECIFIC CONDITIONS

- The Licensee shall comply with all the representations made in the application number 2013-10017-1. BL00003 dated 25 January 2013 received and date stamped 25 January 2013 by the Natural Resources Conservation Authority; documents titled "Original Engineering Design Report Break Water Structures Offshore Negril, Westmoreland Jamaica" dated January 2014 received and date stamped 19 March 2014 by the Natural Resources Conservation Authority, "Environmental Impact Assessment For The Construction Of Two Breakwaters At Long Bay Negril, Westmoreland" dated November 2014 received and date stamped 19 November 2014 by the Natural Resources Conservation Authority, "Specifications Negril Breakwater Project Supply and Placement Tender Document" and "Specifications Negril Breakwater Project Supply Tender Document" both received and date stamped 13 October 2014 by the Natural Resources Conservation Authority; letter dated 21 May 2014 from CL Environmental signed by Carlton Campbell received and date stamped 22 May 2014 by the Natural Resources Conservation Authority, letter dated 15 September 2014 from National Works Agency signed by Andrew Sturridge received and date stamped 16 September 2014 by the Natural Resources Conservation Authority (and accompanying document), letter dated 1 October 2014 by F. G. Hunter from National Works Agency received and date stamped 18 October 2014 by the Natural Resources Conservation Authority and any accompanying addenda.
- 2. The Licensee shall ensure that all correspondence, notifications, plans, reports or any other documents being submitted to the Agency pursuant to any General and/or Specific Condition of the Licence are addressed to Manager, Enforcement Branch, National Environment and Planning Agency, 10 Caledonia Avenue, Kingston 5 and can be submitted mail and/or email at EnforcementManager@nepa.gov.im.
- 3. The Licensee shall submit proof of ownership, as well as executed lease/tenure agreement (if applicable) of the parcel(s) adjacent to the area to be reclaimed, within thirty (30) days of the date of issue of this Licence, and this is to be received and approved by the Agency prior to the commencement of the works.
- 4. The Licensee shall apply for approval from the Authority for any change in the construction of the Stock Pile (Staging) Area prior to construction and such changes shall not be implemented without the prior written approval of the Authority
- 5. The Licensee shall, in writing, notify the Manager, Enforcement Branch of the National Environment and Planning Agency, 10 Caledonia Avenue, Kingston 5, or by email: Enforcement Manager@nepa.gov.im, in writing of the date of commencement of the Works, at least seven (7) working days prior to commencement, so that the activities can be monitored.
- 6. The Licensee shall submit in writing to the Manager, Enforcement Branch (email: EnforcementManager@nepa.gov.jm), National Environment and Planning Agency, 10 Caledonia Avenue, Kingston 5 information relating to the source and quantity of the material to be used in the Works at least one (1) month prior to the use of the material. This information shall include but not be limited to the following:
  - Documentation on the source, characteristics and country of origin of the material
  - Documentation indicating purchase/export/import of material to be used in beach reclamation works
  - Certification that the material carries no pollutants and/or biological contaminants; and

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- A copy of the Quarry Licence
- 7. The Licensee shall submit detailed plans to the Agency for the construction of the Stock Pile (Staging) Area with details of the Caribbean Sea and South Negril River boundaries including georeferenced coordinates for the location of the corners of the sheet pile wall site within thirty (30) days of the date of issue of the Permit of prior to the commencement of construction.
- The Licensee shall inform the National Environment and Planning Agency in writing at least two 8. weeks prior to the commencement of the following construction activities for the Stock Pile (Staging) Area to allow for inspection:
  - a. Setting out of sheet pile
  - b. Start of sheet piling
  - c. End of sheet piling
    d. Start of site filling
    e. End of site filling

  - f. Start of dredging in front of sheet piles (Caribbean Sea)
  - g. End of dredging in front of sheet piles (Caribbean Sea)
  - h. Completion of construction of Stock Pile Area
- 9. The Licensee shall provide a written weekly report on the status of the construction of the Stock Pile (Staging) Area to the National Environment and Planning Agency (NEPA), no later than the Monday of the following week.
- 10. The Permittee shall erect signs to indicate the location of the over burden storage area and the storm water detention pond. The signs shall be a minimum dimension of 1.5m wide, 1.0m high with title lettering 100mm high and secondary lettering 50mm high. The signs shall display the following words:

## Stock Pile (Staging Area) - Storm Water **Detention Pond**

# Stock Pile (Staging Area) - Overburden Storage Area

- 11. The Licensee shall ensure that all pile driving activities are carried out between the hours of 9:00 a.m. and 5:00 p.m. from Mondays to Saturdays. There shall be no pile driving works on Sundays and Public Holidays. Any work to be done outside of this period will require the explicit written permission of the Authority.
- 12 The Licensee and/or its agents shall erect and maintain a continuous sediment control device (silt curtain, bubble curtain) around the Licensed Area to restrict and control the movement of and to prevent the escape of sediment generated by the Works into the adjacent marine environment before the commencement of the Works.
- 13. The sediment control devices (silt curtain, bubble curtain) outlined in Specific Condition 12 above, shall remain in place until turbidity values within and around 10 metres of the Licensed Area fall below 15 NTUs or ambient conditions surrounding the cordoned off area, whichever is higher.
- 14. In the event that the sediment control devices (silt curtain, bubble curtain) outlined in Specific Condition 12 are damaged, destroyed or otherwise rendered ineffective by waves, currents and/or other meteorological events, the Works shall be suspended until the disturbance has passed and the necessary repairs are carried out.
- 15. Prior to hurricanes or tropical storms, work shall be halted and turbidity values allowed to fall below 15 NTUs or ambient condition, whichever is higher. Sediment control devices (silt curtain, bubble curtain) shall then be removed and the Licensed Area adequately secured to prevent any undue runoff into the adjacent marine environment.

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- 16. The Licensee shall submit to the Manager, Enforcement Branch, National Environment and Planning Agency, 10 Caledonia Avenue, Kingston 5 or by email: <a href="mailto:EnforcementManager@nepa.gov.jm">EnforcementManager@nepa.gov.jm</a>, a Traffic Management plan within thirty (30) days of the date of issue of this Licence and prior to the works.
- 17. The Licensee shall submit to the Manager, Enforcement Branch, National Environment and Planning Agency, 10 Caledonia Avenue, Kingston 5, or by email: EnforcementManager@nepa.gov.im a Waste Management plan within thirty (30) days of the date of issue of this Licence and prior to the start of the works.
- 18. The Licensee shall ensure that any waste generated from the activity is disposed of at a municipal dumpsite with the approval of the National Solid Waste Management Authority (NSWMA). A copy of the approval from the NSWMA must be submitted to the Manager, Enforcement Branch, National Environment and Planning Agency, 10 Caledonia Avenue, Kingston 5 or EnforcementManager@nepa.gov.jm prior to the commencement of dredging activities.
- 19. The Licensee shall obtain the express written approval of the Authority prior to any changes in the volume of material used in the reclamation activities in excess of the volume stated in this Licence.
- 20. The Licensee and/or its agents shall not permit the discharge of waste, including but not limited to sullage waste, oil, oily waste, trade or sewage effluent, chemicals or any poisonous noxious or polluting matter into the water or on the ground, as a result of the Works.
- 21. The Licensee shall submit a storm water drainage plan to the Manager, Enforcement Branch, National Environment & Planning Agency, 10 Caledonia Avenue, Kingston 5 for approval, within thirty (30) days of the date of issue of this Licence.
- 22. The Licensee shall ensure that the storm water drainage plan for the Stock Pile (Staging) Area is implemented in accordance with the approval granted as per Specific Condition 21.
- 23. The Licensee shall develop a detailed Maintenance Plan for the drainage system to include but not be limited to scour protection, crosion and sediment control, cleaning of silt traps and cleaning of detention ponds, frequency of pond and drain cleaning. This Maintenance Plan shall be submitted to the Manager, Enforcement Branch, National Environment & Planning Agency, 10 Caledonia Avenue, Kingston 5 for approval within thirty (30) days of the date of issue of this Licence.
- 24. The Licensee shall ensure that all man-made storm drains shall be effectively intercepted with silt management features such as adequately sized silt traps to minimize excessive sediment flows to the South Negril River and the marine environment. Maintenance of these drainage features (silt traps) shall be included in the maintenance plan for the drainage network.
- 25. The Licensee shall ensure that there is no refueling of any marine vessel at the Licensed Area, unless specifically provided for in a Licence from the Authority.
- 26. The Licensee shall immediately notify the Manager, Enforcement Branch, National Environment and Planning Agency, 10 Caledonia Avenue, Kingston 5, or by email: EnforcementManager@nepa.gov.jm, of any spillage of or accident with any hazardous chemicals, inclusive of all hydrocarbons and environmentally damaging material and shall report on the clean-up activities as per MARPOL 73/78, Annex I, Regulation 26 within twenty-four (24) hours of the incident
- 27. Any sensitive organisms, including but not limited to corals, seagrass and associated invertebrates (urchins, star fish, sea cucumbers), found within the Licensed Area shall be relocated to an undisturbed area on the floor of the sea immediately adjoining the Licensed Area, prior to commencement of the Works, to the satisfaction of the Authority.
- 28. The Licensee shall undertake and submit weekly monitoring reports to the Manager, Enforcement Branch, National Environment and Planning Agency, 10 Caledonia Avenue, Kingston 5 or by email: <a href="mailto:EnforcementManager@nepa.gov.jm">EnforcementManager@nepa.gov.jm</a>, of the reclamation works. This information shall include, but shall not be limited to:
  - a. The date, exact place and time of sampling or measurement for water quality inclusive of ambient water turbidity and turbidity during construction and maintenance works.
  - b. The person(s) responsible for performing the sampling or measurement.
  - The date(s) analyses were performed; and
  - d. The analytical techniques or methods used.
- 29. All equipment, left over material, equipment parts and any other material incidental to the reclamation activities shall be dismantled and removed from the floor of the sea and from shore-based facilities at the completion of the Works and in any event, prior to the expiry of this Licence.

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- 30. The Licensee shall develop a Restoration Plan for the Stock Pile (Staging) Area and submit a copy to the Manager of the Enforcement Branch, National Environment and Planning Agency, 10 Caledonia Avenue, Kingston 5 or by email: <a href="mailto:EnforcementManager@nepa.gov.im">EnforcementManager@nepa.gov.im</a> for approval by the Authority within six (6) months of the commencement of the Works.
- 31. The Licensee shall ensure that upon the completion of the construction activities described in Beach Licence L3448A, the material including but not limited to boulders, aggregates or other waste material from the Stockpile (Staging) Area is removed to the approved dump site and this area is returned to its original state, to the satisfaction of the Agency.
- 32. Pursuant to Specific Condition 30 the Licensee shall prior to the removal of the Stockpile (Staging) Area, notify the Authority at least two (2) weeks in advance of the works to be undertaken.
- 33. The Licensee shall ensure that all boulders and/or fill material are delivered between the hours of 9:00 a.m. and 5:00 p.m. from Mondays to Saturdays. There shall be no offloading of trucks on Sundays and Public Holidays. Any work to be done outside of this period will require the explicit written permission of the Authority.
- 34. The Licensee shall ensure that trucks delivering boulders/aggregates to the site are not allowed to traverse the Norman Manley Boulevard. Any trips to be made along this thoroughfare will require the explicit written permission of the Authority.
- 35. The Licensee shall ensure that truck operators are trained regarding the application of engine brakes within the town of **Negril** and shall best as possible avoid or reduce their use in order to reduce the noise impact generated as a consequence.
- 36. The Licensee shall ensure that all trucks delivering boulders/aggregates to the site are assessed for oil leaks, noise, faulty exhaust etc. and deemed fit before they are included in the project and a copy of the inspection reports shall be made available to the Agency upon request.
- 37. The Licensee shall ensure that in the event of an accident involving the delivery trucks that the Manager, Enforcement Branch, National Environment and Planning Agency, 10 Caledonia Avenue, Kingston 5 or by email: <a href="mailto:EnforcementManager@nepa.gov.jm">EnforcementManager@nepa.gov.jm</a>, is immediately notified by email and a written report is to be submitted within seven (7) days of the incident.
- 38. The Licensee shall ensure that a truck scale to facilitate weighing is placed at the staging area prior to any receipt of boulders/aggregates.
- 39. The Licensee shall submit an Operation and Maintenance Plan for the equipment to be used to carry out the works, to the Manager, Enforcement Branch, National Environment and Planning Agency 10 Caledonia Avenue, Kingston 5, or emailed to <a href="EnforcementManager@nepa.gov.jm">EnforcementManager@nepa.gov.jm</a>, for the approval of the Authority, within thirty (30) days of the date of issue of this Licence. This Plan shall include but not be limited to contingencies in the event of a malfunction of any of the equipment.
- 40. Any material used for the Works, with the exception of the boulders/aggregates shall be appropriately washed and screened to reduce the amount of fine-grained materials that is placed into the marine environment directly or indirectly. Areas designated for washing of the material shall be approved by the Authority prior to commencement of the Works.
- 41. The Licensee shall ensure that unwashed boulders/aggregates are not accepted and that trucks delivering such material are not be allowed to unload at the site.
- 42. The Licensee shall in the event of the unloading of unwashed boulders/aggregates remove the material from the site within 24-48 hours.
- 43. The granting of this Licence does not relieve the Licensee from complying with any other statutory obligation or from applying for and obtaining any permission, certification, permit or licence required by law. These include but are not limited to Building Permission under the Building Act, Planning Permission under the Town and Country Planning Act and Environmental Permits and Environmental Licences under the Natural Resources Conservation Authority Act.
- 44. The Licensee shall not commence construction of the construction site offices without the requisite Building Permission.

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#### 45. Coral and Seagrass Relocation

- The Licensee shall prepare for the approval of the Authority at least one (1) month prior to the commencement of the dredging and reclamation works, a Coral and Seagrass Relocation Plan. This shall include but is not limited to:
  - a. The georeferenced location, size and pictures of all corals and seagrass beds to be relocated;
  - b. A rationale for the exclusion of any individuals/colonies which will not be relocated;
  - The georeferenced location and pictures of the proposed coral relocation sites;
  - c. The georeferenced location and pictures of the proposed coral resonance,
    d. Detailed methodology for the relocation of corals and seagrass, including methods for harvesting, transporting and replanting/anchoring;
  - e. Existing physicochemical conditions at the reclamation site and proposed relocation sites including nutrients, light, salinity, temperature, waves, currents, sediment depth and sediment type;
  - f. Statement of existing anthropogenic impacts at both the reclamation site and proposed relocation site;
  - g. A proposed schedule for the completion of the works;
  - h. Proposed sediment control mechanism;
  - i. The name and credentials of the qualified professional or entity conducting the relocation at each site; and
  - Sample format for monitoring reports.
- ii. The Licensee shall demarcate the working footprint of each relocation (receptor) site and shall ensure that the sites are adequately prepared for reception of corals.
- iii. The Licensee shall not commence relocation until the prepared area as per specific condition ii has been inspected and approved by the Authority
- iv. The Licensee shall erect suitable sediment control devices around the dredge site and at each relocation site where the bathymetry is to be modified by infilling or other deposition activities.
- The Licensee shall apply for permission to deploy any encroachment which may be necessary to modify the existing conditions at the receptor sites in preparation for relocation of corals.
- vi. The License shall ensure that the coral colonies being relocated are stored with no less than 10cm of space between each unit to prevent competition.
- vii. The Licensee shall inform the Agency in writing, within five (5) working days, of completion of each relocation activity, per site, to allow for inspection of the area.
- viii. The Licensee shall ensure that the qualified professional hired to supervise the relocation works conducts a training of not less than one (1) day inclusive of field and lecture sessions for all persons to be used to do the relocation of corals.
- ix. The Licensee shall inform the Agency in writing of changes in the qualified professional or entity that is to supervise the relocation activity.
- x. The Licensee shall ensure that detailed daily logs of the relocation activities for each site are maintained and submitted to the Agency within 7 working days of completion of each site. Daily logs are to include, but should not be limited to the following:
  - a. The location and total number of each coral species harvested and anchored (receptor site);
  - b. Dated photographic evidence of all works; and
  - c. A gridded map of donor and receptor sites showing daily coral relocation activities.
- xi. The Licensee shall submit a minimum of five (5) monitoring reports on the status of the relocated seagrass and corals for a period of not less than one year subject to the following schedule:
  - a. Thirty days after the completion of replanting works at each site (time zero for each phase and sitc);
  - b. Quarterly (every three months) thereafter.
- xii. Pursuant to specific condition xi above, the monitoring report shall include but not be limited to:
  - a. The name(s) of the person responsible for monitoring;
  - b. Location of relocation sites;
  - c. Photographs showing progression at the relocation sites over time;d. Time and date of monitoring and analysis;

  - e. Description as needed of supplemental planting activities conducted and the georeferenced locations of these;
  - f. Fish counts in the replanted areas; and
  - g. An indication on the current status, percentage survival and success of the plantings to include:

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- i. Water quality (suspended solids and nutrients);
- ii. Acrial extent and coverage over time using photographic inventory (annual acrial/satellite imagery coinciding with the reporting period);
- iii. Bioturbation and causes; and
- iv. Qualitative assessment of natural recruitment and expansion by relocated units.
- xiii. The Licensec shall be liable and responsible for all planting sites until the targeted goal within the restoration areas of 65% areal coverage due only to the planting units or 80% total coverage (including natural recruitment and other species providing coverage) is met.
- xiv. The Licensee shall ensure that any coral colonies which are fragmented during the relocation works are relocated in their entirety.
- 46. The granting of this Licence does not relieve the Licensee from complying with any other statutory obligation or from applying for and obtaining any permission, certification, permit or licence required by law. These include but are not limited to Building Permission under the Building Act, Planning Permission under the Town and Country Planning Act and Environmental Permits and Environmental Licences under the Natural Resources Conservation Authority Act.

#### THIRD SCHEDULE

A. On collection of the Licence, the licensing fee of \$166,950.00 is to be paid (this is a one time payment). This licence is not renewable.

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## NATIONAL ENVIRONMENT & PLANNING AGENCY

10 & 11 Caledonia Avenue, Kingston 5, Jamaica W.I. Tel: (876) 754-7540/3 Fax: (876) 754-7595-6 Tollfree: 1-888-991-5005 E-mail: ceo@nepa.gov.jm, Website: http://www.nepa.gov.jm

# THE BEACH CONTROL ACT FOR THE USE OF THE FORESHORE AND THE FLOOR OF THE SEA (PURSUANT TO SECTION 11 OF THE BEACH CONTROL ACT 1956)

THE NATURAL RESOURCES CONSERVATION AUTHORITY (hereinafter "the Authority") hereby grants NATIONAL WORKS AGENCY (hereinafter "the Licensee") of 140 MAXFIELD AVENUE, KINGSTON 10 in the parish of ST. ANDREW in accordance with and subject to the provisions of the Beach Control Act 1956 and the Regulations made thereunder A LICENCE (hereinafter "the Licence") to encroach on the foreshore and floor of the sea at LONG BAY situate at NEGRIL in the parish of WESTMORELAND (hereinafter "the Licensed Area") more particularly described in the First Schedule hereto for the following purpose (hereinafter "the Works"):

# TO UNDERTAKE CAPITAL DREDGING BY REMOVING 2,377 CUBIC METRES OF MATERIAL

This Licence is granted subject to the provisions of the Specific Conditions and General Conditions contained in the Second and Third Schedules hereunder and shall expire on the 31 day of March in the Year 2015. This Licence shall not be transferable.

DATED this 25th

day of November 2014

LICENCE NO.: L3448C

CHAIRMAN

THAMANI SMITH SECRETARY

#### FIRST SCHEDULE

To undertake capital dredging by removing Two Thousand, Three Hundred and Seventy Seven (2,377 m³) cubic metres of material from that portion of the floor of the sea at LONG BAY, NEGRIL in the parish of WESTMORELAND which abuts East on the Caribbean Sea, West on the Caribbean Sea, North on the Caribbean Sea and South on the Caribbean Sea as stated on the beach licence application dated 25 January 2013 bearing the application Number 2013-10017-BL00003 received and date stamped by the Natural Resources Conservation Authority 25 January 2013.

#### SECOND SCHEDULE

#### **Definitions**

"Licensee" means the holder of this Licence.

"Authority" means the Natural Resources Conservation Authority established pursuant to S.3 of the Natural Resources Conservation Authority Act.

"Agency" means the National Environment and Planning Agency established pursuant to S.4 of the Executive Agencies Act.

"Representation" means any information implied or express on which the Authority has relied to grant this Licence and includes all the information contained in the Application Form and the Environmental Impact Assessment Report where applicable, addenda and all supplementary documentation and information including but not limited to correspondence.

The Licensee hereby undertakes to comply with all of the following terms and conditions:

#### GENERAL CONDITIONS

- 1. This Licence is granted for a period beginning on the date of issue herein and shall expire on the 31st day of March in the year 2015.
- 2. Any member of the Authority or any officer authorized in writing on its behalf may, during the continuance of this Licence, make such periodical inspections of and investigations concerning the Licensed Area and of the land adjacent to such area within the control of the Licensee as may be necessary for the purpose of ascertaining whether the terms and conditions of this Licence are being observed or not and the Licensee shall allow the authorized officer to carry out the said inspections and investigations.
- 3. The Authority may, in its sole discretion, revoke or suspend this Licence for any breach of the general or specific conditions.
- 4. The Licensee hereby agrees that she will be responsible for any work carried out pursuant to this Licence including the works of contractors, agents and any other third party.
- 5. The Authority may initiate legal or administrative actions for any violation of any of the terms and conditions set forth herein.
- 6. During the period of this Licence the Authority reserves the right to review this Licence periodically and alter, amend or introduce new terms and conditions to the provisions herein.
- 7. The failure of the Authority to enforce at anytime, or for any period, any one or more of the terms and conditions of this Licence shall not be considered a waiver of such terms and conditions or the waiver of the right at any time subsequent to enforce all the terms and conditions of this Licence.
- 8. The Licensee shall not assign, dispense with or transfer this Licence or part with any benefit arising from it or grant any sub-licence under it.
- 9. This Licence is granted subject to any existing legal rights of third parties or any order of any Court granting any right of user over the Licensed Area or adjoining land.
- 10. No sign or notice may be erected or placed upon or in the Licensed Area unless the size, wording and location thereof have previously been approved in writing by the Authority.
- 11. The Licensee shall, prior to the commencement of the licensed activity, post a sign in a prominent place on the licensed area using the same design and words as set out in the Fourth Schedule of this Licence.
- 12. The discharge of oil, oily waste, trade or sewage effluent, chemicals, solid waste, poisonous, noxious or polluting substances into the Licensed Area from any vessel or equipment supporting the activity is prohibited.
- 13. The Licensee and/or its agents shall not remove or permit the removal of sand from the Licensed Area without the prior written approval of the Authority.

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- 14. Subsequent to the grant of this Licence, the Licensed Area shall not be altered nor any encroachment constructed without the prior written approval of the Authority.
- 15. Where any mitigatory measure taken to minimize turbidity in waters is impractical or ineffective or becomes impractical as a result of abnormal weather or sea conditions, the Works shall be suspended until the weather conditions and ocean parameters return to normality.
- 16. The Licensee shall not modify the physical nature of the Licensed Area or construct any foreshore modification in connection with the Licensed Area except under a Licence granted by the Authority pursuant to the Beach Control Act.
- 17. The dredging works shall be performed under the supervision of professional personnel, who are qualified and competent to carry out coastal engineering works and who are conversant with the accompanying safety requirements and the hazards to employees, the public and the environment.
- 18. Vessels to be moored and pipelines to be laid in support of the dredging works within the Licensed Area shall be so deployed that they shall not present a danger to sensitive benthic features such as coral reefs.
- 19. The Licensee shall execute a Deed of Indemnity, indemnifying the Authority and the Government of Jamaica against all actions, proceedings, claims, losses, damages, injuries, demands, costs and expenses which may become payable by the Authority or the Government of Jamaica as a result of the Works.

#### Specific Conditions

- 1. The Licensee shall comply with all the representations made in the application number 2013-10017-BL00003 dated 25 January 2013 received and date stamped 25 January 2013 by the Natural Resources Conservation Authority; documents titled "Original Engineering Design Report Break Water Structures Offshore Negril, Westmoreland Jamaica" dated January 2014 received and date stamped 19 March 2014 by the Natural Resources Conservation Authority, "Environmental Impact Assessment For The Construction Of Two Breakwaters At Long Bay Negril, Westmoreland" dated November 2014 received and date 19 November 2014 by the Natural Resources Conservation Authority, "Specifications Negril Breakwater Project Supply and Placement Tender Document" and "Specifications Negril Breakwater Project Supply Tender Document" both received and date stamped 13 October 2014 by the Natural Resources Conservation Authority; letter dated 21 May 2014 from CL Environmental signed by Carlton Campbell received and date stamped 22 May 2014 by the Natural Resources Conservation Authority, letter dated 15 September 2014 from National Works Agency signed by Andrew Sturridge received and date stamped 16 September 2014 by the Natural Resources Conservation Authority (and accompanying document), letter dated 1 October 2014 by E. G. Hunter from National Works Agency received and date stamped 18 October 2014 by the Natural Resources Conservation Authority and any accompanying addenda.
- 2. The Licensee shall ensure that all correspondence, notifications, plans, reports or any other documents being submitted to the Agency pursuant to any General and/or Specific Condition of the Licence are addressed to Manager, Enforcement Branch, National Environment and Planning Agency, 10 Caledonia Avenue, Kingston 5 and can be submitted mail and/or email at EnforcementManager@nepa.gov.jm.
- 3. The Licensee shall at least seven (7) working days prior to the commencement of the dredging activity, submit a schedule to the Manager, Enforcement Branch of the National Environment and Planning Agency, 10 Caledonia Avenue, Kingston 5 or by email at EnforcementManager@nepa.gov.jm.
- 4. Any changes in the schedule referred to in Specific Condition 3 shall be submitted to the Manager, Enforcement Branch of the National Environment and Planning Agency, 10 Caledonia Avenue, Kingston 5 or by email at <a href="mailto:EnforcementManager@nepa.gov.im">EnforcementManager@nepa.gov.im</a>, at least seven (7) working days prior to the implementation of the change.
- 5. Any sensitive organisms, including but not limited to corals and seagrass, found within the proposed work area are to be relocated to an undisturbed area on the floor of the sea immediately adjoining the dredging site prior to the initiation of any works.
- 6. The Licensec shall not commence dredging until the relocation sites are inspected and approved and the relocation as per specific condition 5 has been completed.

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- 7. The Licensee shall ensure that no more than 2,377 cubic metres of material is removed from that area of the seafloor identified as "Area to be desilted" in drawing titled "Step 1 Stock Pile Area Site Preparation" found on page 86 of document titled "Environmental Impact Assessment For The Construction Of Two Breakwaters At Long Bay Negril, Westmoreland" dated April 2014 received and date stamped 29 April 2014 by the Natural Resources Conservation Authority.
- 8. The Licensee shall demarcate the working footprint of the proposed dredged site at least seven (7) working days prior to commencement of dredging works so the activity can be monitored.
- The Licensee shall ensure that there is no de-silting or other alteration of the South Negril River for any activity in regards to the implementation of the Breakwaters described in Beach Licence L3448A
- 10. The Licensee shall ensure that turbidity values no more than 10 metres outside of the Licensed Area do not exceed 15 NTUs or ambient conditions, whichever is higher.
- 11. The Licensee shall prior to the start of the dredging activity implement and maintain effective sediment control measures (eg. silt or bubble curtains), around the Licensed Area to restrict and control the movement of and to prevent the escape of sediment generated by the Works into the adjacent marine environment..
- 12. The Licensee shall conduct daily inspections of the sediment control measures implemented, to ensure they are functioning properly. If any of these measures are found to be deffective or damaged, the works shall be suspended until the necessary repairs or corrective measures are effected.
- 13. The Licensec shall ensure that 48 hours prior to hurricanes or tropical storm events, works are halted and turbidity values allowed to fall below 15 NTUs or ambient conditions. Installed sediment control measures should then be removed and the works area adequately secured to prevent any adverse impact on the adjacent marine environment.
- 14. The Licensce shall ensure that the active dredge site is continuously monitored to ensure that dredging activity does not impact any marine flora or fauna including but not limited to corals or seagrass within close proximity.
- 15. The Licensee shall ensure that equipment being used in the dredging activity is not placed on corals, seagrass beds or other marine flora and fauna and is placed no less than 2 metres from any living corals.
- 16. The Licensee shall obtain the expressed written approval of the Authority prior to any changes in volumes of dredging material in excess of the volume stated in this Licence.
- 17. The Licensee shall ensure proper design, operation and maintenance of all equipment used to remove and transport dredge material to the reclamation site.
- 18. The Licensee shall ensure that all the dredge material is used in the reclamation of the staging area described in Beach Licence L3448B and there shall be no other use or disposal authorized.
- 19. In case of accidental spills of the dredge spoil the Licensee shall immediately cease all dredging works and immediately notify the Mauager, Enforcement Branch, National Environment and Planning Agency, 10 Caledonia Avenue, Kingston 5 or by email: EnforcementManager@nepa.gov.jm.
- 20. The Licensee shall immediately notify the Manager, Enforcement Branch, National Environment and Planning Agency, 10 Caledonia Avenue, Kingston 5 or by email: Enforcement Manager (Inc.) neparation of any spillage of or accident with any hazardous chemicals, inclusive of all hydrocarbons and environmentally damaging material and shall report on the clean-up activities as per MARPOL 73/78, Annex I, Regulation 26 within twenty-four (24) hours of the incident
- 21. The Licensee or its agents shall not permit the discharge of waste, including but not limited to sullage waste, oily waste or chemicals or any poisonous, noxious or polluting matter into the water or on the ground, as a result of the dredging activity.
- 22. The Licensee shall ensure that there is no refueling of any marine vessel at the **dredge** site unless provided for specifically in a Licence from this Authority.
- 23. Dredging shall be in accordance with the Natural Resources Conservation Authority's Guidelines for the Planning and Execution of Coastal and Eustrurine Dredging Works and the Disposal of

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- the Dredged Materials a copy of which can be found at www.nepa.gov.jm/publications/guidelines/Guideline-for-Coastal-Dredging-Works.pdf.
- 24. The Licensee and its agents shall ensure that there is no blasting or use of explosives in the Licensed Area.
- 25. The Licensee shall submit to the Manager, Enforcement Branch, National Environment and Planning Agency, 10 Caledonia Avenue, Kingston 5, or by email: <a href="mailto:EnforcementManager@nepa.gov.jm">EnforcementManager@nepa.gov.jm</a>, a Waste Management plan within thirty (30) days of the date of issue of this Licence.
- 26. The Licensee shall ensure that any waste generated as a consequence of the dredging activity is disposed of at a municipal dumpsite with the approval of the National Solid Waste Management Authority (NSWMA). A copy of the approval from the NSWMA must be submitted to the Manager, Enforcement Branch, National Environment and Planning Agency, 10 Caledonia Avenue, Kingston 5 or by email to <a href="mailto:EnforcementManager@nepa.gov.jm">EnforcementManager@nepa.gov.jm</a> prior to the commencement of dredging activities.
- 27. The Licensee shall undertake and submit weekly monitoring reports to the Manager, Enforcement Branch of the National Environment and Planning Agency, 10 Caledonia Avenue, Kingston 5 or by email to <a href="mailto:EnforcementManager@nepa.gov.im">EnforcementManager@nepa.gov.im</a> of the dredging works. This information shall include, but shall not be limited to:
  - The date, exact place and time of sampling or measurement for water quality inclusive of ambient water turbidity and turbidity during dredging works;
  - The person(s) responsible for performing the sampling or measurement;
  - The date(s) analyses were performed;
  - Analytical techniques or methods used;
  - The results of these water quality analysis;
  - Logs of the total volume of material removed per day, time of commencement and end of dredging per day and depth from which material was dredged;
  - Details of any environmental incidents, including spills or damage to sensitive marine organisms and corrective actions taken; and
  - Details of assessments of the implemented sediment control measures.
- 28. The Licensee shall submit for the approval of the Agency, a detailed Environmental Monitoring and Mitigation Plan prior to the commencement of the dredging activities. This Plan shall include, but shall not be limited to:
  - Person(s) responsible for environmental management;
  - Details for the monitoring of water quality;
  - Measures to be employed to control water turbidity and prevent the escape of suspended particles into the surrounding environment, including but not limited to operational and engineering control measures;
  - Contingency measures to be employed to clean up of any accidental spills fuel or hazardous material and sediment – that may occur; and
  - Sample format for monitoring reports.
- 29. All equipment, left over material, equipment parts and any other material incidental to the dredging activities shall be dismantled and removed from the floor of the sea and from shore based facilities following the completion of the dredging works.
- 30. The Licensee shall ensure that all vessels to be used in the dredging operations receive the requisite approval from the Maritime Authority of Jamaica (MAJ). A copy of the approval from the MAJ shall be submitted to the Manager, Enforcement Branch, National Environment and Planning Agency, 10 Caledonia Avenue, Kingston 5 or <a href="mailto:EnforcementManager@nepa.gov.jm">EnforcementManager@nepa.gov.jm</a> prior to the commencement of dredging activity.

#### 31. Coral and Seagrass Relocation

- i. The Licensee shall prepare for the approval of the Authority at least one (1) month prior to the commencement of the dredging and reclamation works, a Coral and Seagrass Relocation Plan. This shall include but is not limited to:
  - The georeferenced location, size and pictures of all corals and seagrass beds to be relocated;
  - b. A rationale for the exclusion of any individuals/colonies which will not be relocated;
  - c. The georeferenced location and pictures of the proposed coral relocation sites;
  - d. Detailed methodology for the relocation of corals and seagrass, including methods for harvesting, transporting and replanting/anchoring;
  - e. Existing physicochemical conditions at the dredge site and proposed relocation sites including nutrients, light, salinity, temperature, waves, currents, sediment depth and sediment type;

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- Statement of existing anthropogenic impacts at both the dredge site and proposed relocation site;
- A proposed schedule for the completion of the works;
- h. Proposed sediment control mechanism;
- The name and credentials of the qualified professional or entity conducting the relocation at each site; and
- Sample format for monitoring reports.
- The Licensee shall demarcate the working footprint of each relocation (receptor) site and shall ensure that the sites are adequately prepared for reception of seagrass and corals.
- iii. The Licensee shall not commence relocation until the prepared area as per specific condition ii has been inspected and approved by the Authority.
- iv. The Licensee shall erect suitable sediment control devices around the dredge site and at each relocation site where the bathymetry is to be modified by infilling or other deposition activities
- v. The Licensee shall apply for permission to deploy any encroachment which may be necessary to modify the existing conditions at the receptor sites in preparation for relocation of seagrass or corals.
- vi. The License shall ensure that the coral colonies being relocated are stored with no less than 10cm of space between each unit to prevent competition.
- vii. The Licensee shall inform the Agency in writing, within five (5) working days of completion of each relocation activity, per site, to allow for inspection of the area.
- viii. The Licensee shall ensure that the qualified professional hired to supervise the relocation works conducts a training of not less than one (1) day inclusive of field and lecture sessions for all persons to be used to do the relocation of both corals and seagrass.
- ix. The Licensee shall inform the Agency in writing of changes in the qualified professional or entity that is to supervise the relocation activity.
- The Licensee shall ensure that detailed daily logs of the relocation activities are maintained and submitted to the Agency within 7 working days of completion of each site. Daily logs are to include, but should not be limited to the following:
  - The location and total area of each seagrass species harvested (donor site) and planted (receptor site);
  - The location and total number of each coral species harvested and anchored (receptor
  - Dated photographic evidence of all works; and
  - A gridded map of donor and receptor sites showing daily seagrass and coral relocation iv. activities.
- xi. The Licensee shall submit a minimum of five (5) monitoring reports on the status of the relocated seagrass and corals for a period of not less than one year subject to the following schedule:
  - a. Thirty days after the completion of replanting works at each site (time zero for each phase and site);
  - Quarterly (every three months) thereafter.
- xii. Pursnant to specific condition xi above, the monitoring report shall include but not be limited to:
  - a. The name(s) of the person responsible for monitoring;
  - b. Location of relocation sites;
  - Photographs showing progression at the relocation sites over time;
  - d. Time and date of monitoring and analysis;
  - e. Description as needed of supplemental planting activities conducted and the geometerenced locations of these;
  - Fish counts in the replanted areas; and
  - g. An indication on the current status, percentage survival and success of the plantings to include:
    - i. Total area of planted beds;
    - ii. Areal coverage, transplanted unit survival, shoot density and leaf length (The first monitoring is to use a 50% population assessment that must then be mathematically assessed to determine the optimal sample size to be used in all future monitoring events per site);

- iii. Water quality (suspended solids and nutrients);
- iv. Aerial extent and coverage over time using photographic inventory (annual aerial/satellite imagery coinciding with the reporting period);
- v. Bioturbation and causes; and
- vi. Qualitative assessment of natural recruitment and expansion by relocated units.
- xiii. The Licensee shall ensure that if there is not 40% coverage of each seagrass planting site by the end of first 6 months that supplemental planting is done.
- xiv. The Licensee shall be liable and responsible for all planting sites until the targeted goal within the restoration areas of 65% areal coverage due only to the planting units or 80% total coverage (including natural recruitment and other species providing coverage) is met.
- xv. The Licensee shall ensure that any coral colonies which are fragmented during the relocation works are relocated in their entirety.
- 32. The granting of this Licence does not relieve the Licensee from complying with any other statutory obligation or from applying for and obtaining any permission, certification, permit or licence required by law. These include but are not limited to Building Permission under the Building Act, Planning Permission under the Town and Country Planning Act and Environmental Permits and Environmental Licences under the Natural Resources Conservation Authority Act

#### THIRD SCHEDULE

A. On collection of the Licence, the licensing fee of \$118,850.00 is to be paid (this is a one time payment). This licence is not renewable.

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