NEW ISSUE – BOOK-ENTRY ONLY **RATINGS: Fitch AA-**
Moody's Aa3
See "Ratings" herein

The delivery of the Series 2020 Bonds is subject to the opinion of Katten Muchin Rosenman LLP, Bond Counsel, to the effect that under existing law, interest on the Series 2020A Bonds and the Series 2020C Bonds is not includible in the gross income of the owners thereof for federal income tax purposes and that, assuming continuing compliance with the applicable requirements of the Internal Revenue Code of 1986, interest on the Series 2020A Bonds and the Series 2020C Bonds will continue to be excluded from the gross income of the owners thereof for federal income tax purposes. In addition: (i) interest on the Series 2020A Bonds is an item of tax preference for purposes of computing alternative minimum tax; (ii) interest on the Series 2020C Bonds is not an item of tax preference for purposes of computing alternative minimum tax; and (iii) interest on the Series 2020A Bonds and the Series 2020C Bonds is not excludable from the gross income of owners who are "substantial users" of the facilities financed or refinanced thereby. Interest on the Series 2020B Bonds is not excludable from the gross income of owners thereof for federal income tax purposes. In the further opinion of Bond Counsel, under the existing statutes, interest on the Series 2020 Bonds is exempt from all taxation by the State and any county or any political subdivision thereof, except inheritance, transfer and estate taxes and except to the extent the franchise tax imposed by the laws of the State on banks and other financial institutions may be measured with respect to the Series 2020 Bonds or income therefrom. See "TAX MATTERS" herein.

$266,550,000
STATE OF HAWAII
Harbor System Revenue Bonds

$147,520,000 Series A of 2020 (AMT)	$15,685,000 Taxable Series B of 2020	$103,345,000 Series C of 2020 (Non-AMT)

Dated: Date of Delivery **Due: as shown on inside cover**

This Official Statement relates to the issuance and sale of the above-referenced Harbor System Revenue Bonds Series A of 2020 (AMT) (the "*Series 2020A Bonds*"), Taxable Series B of 2020 (the "*Series 2020B Bonds*") and Series C of 2020 (Non-AMT) (the "*Series 2020C Bonds*," and together with the Series 2020A Bonds and the Series 2020B Bonds, the "*Series 2020 Bonds*"). The Series 2020 Bonds are being issued: (i) in the case of the Series 2020A Bonds and the Series 2020B Bonds, to provide funds for certain capital improvements to the Harbor System, (ii) to refund certain outstanding Harbor System Revenue Bonds, (iii) to fund a deposit of funds into the Series 2020 Debt Service Reserve Subaccount , and (iv) to pay the costs of issuance of the Series 2020 Bonds. The Series 2020 Bonds are special limited obligations of the State, payable solely from and secured by the Net Revenues derived by the State from the ownership or operation of the statewide system of commercial harbors on a parity with certain outstanding Harbor System Revenue Bonds after payment of the costs of operation and maintenance.

The Series 2020 Bonds are issuable in fully registered form and when initially issued will be registered in the name of Cede & Co., as nominee of The Depository Trust Company ("DTC"), New York, New York. Purchases of the Series 2020 Bonds will be made in book-entry form only, through brokers and dealers who are, or who act through, DTC participants. Purchases of the Series 2020 Bonds may be made in the denomination of $5,000 or any integral multiple thereof. Beneficial owners of the Series 2020 Bonds will not receive physical delivery of the Series 2020 Bonds certificates so long as DTC or a successor securities depository acts as the securities depository with respect to the Series 2020 Bonds. So long as DTC or its nominee is the registered owner of the Series 2020 Bonds, payment of the principal of and interest on the Series 2020 Bonds will be made directly by U.S. Bank National Association, as Paying Agent, Transfer Agent and Registrar, to DTC or its nominee. Disbursement of such payments to DTC participants is the responsibility of DTC and disbursement of such payments to the beneficial owners is the responsibility of DTC participants (See "THE SERIES 2020 BONDS—BOOK-ENTRY SYSTEM" herein).

See the inside cover pages for maturities, principal amounts, interest rates, and yields of the Series 2020 Bonds. The Series 2020 Bonds will bear interest at the rates per annum shown on the inside cover hereof, payable on January 1 and July 1 of each year, commencing on July 1, 2021. The Series 2020 Bonds are subject to redemption prior to maturity as and to the extent described herein. See "THE SERIES 2020 Bonds—Redemption."

As a condition to the purchase of any Series 2020 Bonds, each purchaser of a Series 2020 Bond, by acceptance thereof, will be required to consent to all of the proposed amendments to the Certificate of the Director of Transportation of the State, as amended and supplemented, and waives any revocation rights relating to such consent. Accordingly, all purchasers of the Series 2020 Bonds, by virtue of such purchases, will be deemed to have consented to such amendments without right of revocation.

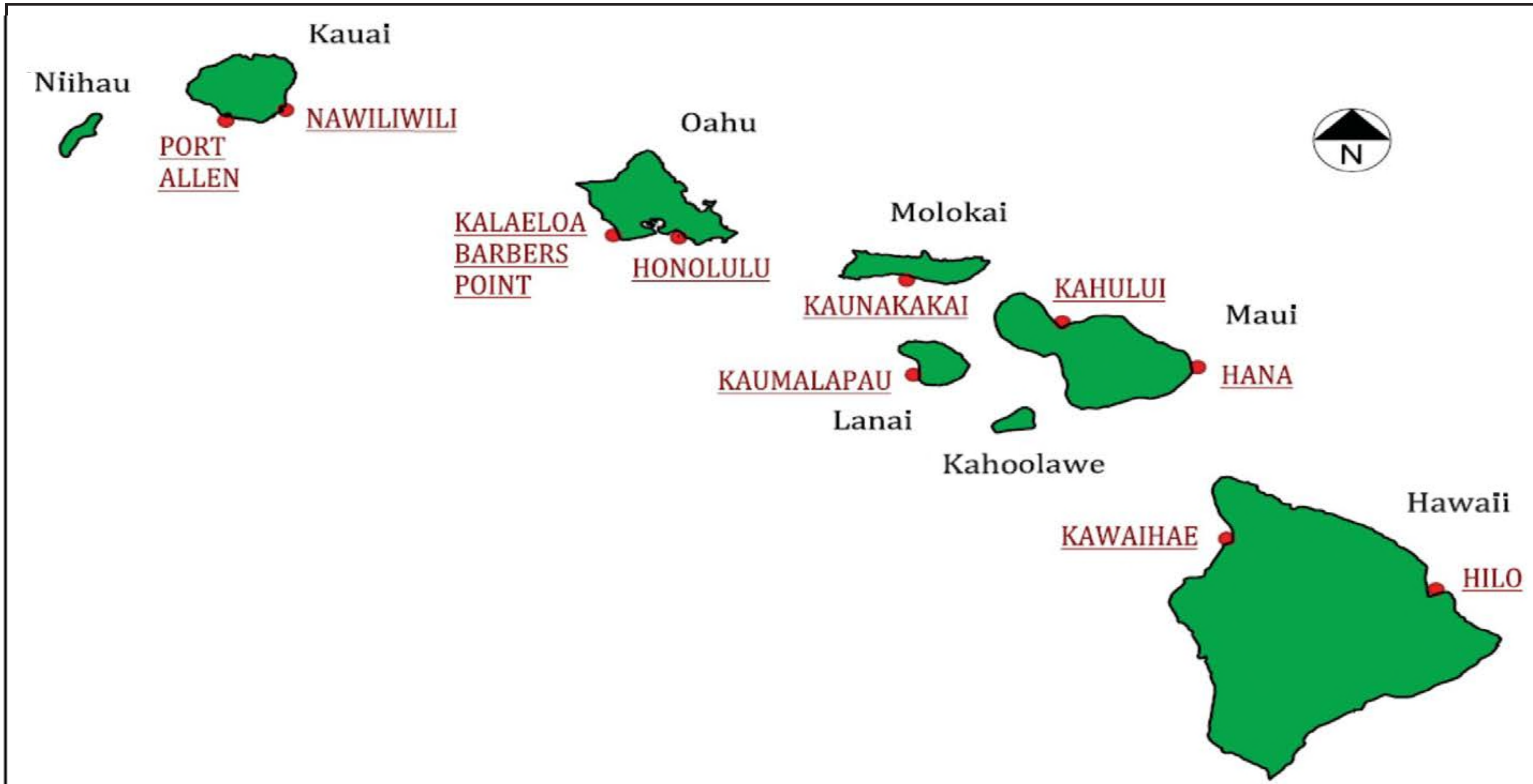
The Series 2020 Bonds do not constitute a general or moral obligation of the State nor a charge upon the general fund of the State. The full faith and credit of neither the State nor any political subdivision thereof is pledged to the payment of or as security for the Series 2020 Bonds. Neither the real property nor the improvements comprising the Harbor System have been pledged or mortgaged to secure payment of the Series 2020 Bonds.

This cover page contains information for quick reference only. It is not a summary of this issue. Investors must read the entire Official Statement, including the appendices hereto, to obtain information essential to the making of an informed investment decision.

The Series 2020 Bonds are offered when, as and if issued, subject to the approval of legality by Katten Muchin Rosenman LLP, Bond Counsel. Certain legal matters will be passed upon for the Underwriter by its counsel, Dentons US LLP, Honolulu, Hawaii. It is expected that the Series 2020 Bonds in definitive form will be available for delivery to DTC on or about December 2, 2020.

BofA Securities

Dated: November 19, 2020



DEPARTMENT OF TRANSPORTATION
HARBORS DIVISION

HAWAII STATE HARBORS

$147,520,000
STATE OF HAWAII
Harbor System Revenue Bonds
Series A of 2020
(AMT)

Maturity (July 1)	Amount	Rate	Yield	Price	CUSIP† 41981T
2021	$ 2,430,000	5.000%	0.570%	102.563	GT4
2024	4,355,000	5.000%	0.700%	115.178	GU1
2025	5,590,000	5.000%	0.770%	119.001	GV9
2026	5,870,000	5.000%	0.940%	122.021	GW7
2027	6,165,000	5.000%	1.110%	124.619	GX5
2028	10,330,000	5.000%	1.270%	126.874	GY3
2029	4,915,000	5.000%	1.400%	129.010	GZ0
2030	5,555,000	5.000%	1.520%	130.916	HA4
2031	12,920,000	4.000%	1.630%	120.941C	HB2
2032	13,445,000	4.000%	1.850%	118.795C	HC0
2033	13,995,000	4.000%	1.920%	118.121C	HD8
2034	14,575,000	4.000%	1.980%	117.547C	HE6
2035	15,165,000	4.000%	2.000%	117.357C	HF3
2036	15,785,000	4.000%	2.020%	117.167C	HG1
2037	16,425,000	4.000%	2.060%	116.787C	HH9

$15,685,000
STATE OF HAWAII
Harbor System Revenue Bonds
Taxable Series B of 2020

Maturity (July 1)	Amount	Rate	Yield	Price	CUSIP† 41981T
2021	$ 3,530,000	0.600%	0.600%	100.000	HJ5
2022	6,685,000	0.700%	0.700%	100.000	HK2
2023	4,505,000	0.900%	0.900%	100.000	HL0
2024	965,000	1.150%	1.150%	100.000	HM8

C Priced to July 1, 2030 Call Date

†CUSIP is a registered trademark of American Bankers Association. CUSIP data herein is provided by CUSIP Global Services, managed by Standard and Poor's Financial Services LLC on behalf of the American Bankers Association. The CUSIP numbers are provided for convenience of reference only. The State is not responsible for the selection of CUSIP numbers and makes no representation as to their correctness on the Series 2020 Bonds or as set forth in this Official Statement.

$103,345,000
STATE OF HAWAII
Harbor System Revenue Bonds
Series C of 2020
(Non-AMT)

Maturity (July 1)	Amount	Rate	Yield	Price	CUSIP† 41981T
2029	$ 5,940,000	5.000%	1.000%	132.811	HP1
2030	7,160,000	5.000%	1.120%	135.153	HQ9
2031	7,490,000	4.000%	1.250%	124.756C	HR7
2032	7,800,000	4.000%	1.470%	122.531C	HS5
2033	8,115,000	4.000%	1.590%	121.337C	HT3
2034	8,440,000	4.000%	1.690%	120.352C	HU0
2035	8,785,000	4.000%	1.730%	119.960C	HV8
2036	9,145,000	4.000%	1.760%	119.668C	HW6
2037	9,520,000	4.000%	1.790%	119.376C	HX4
2038	9,905,000	4.000%	1.820%	119.085C	HY2
2039	10,315,000	4.000%	1.840%	118.892C	HZ9
2040	10,730,000	4.000%	1.880%	118.506C	JA2

C Priced to July 1, 2030 Call Date.

†CUSIP is a registered trademark of American Bankers Association. CUSIP data herein is provided by CUSIP Global Services, managed by Standard and Poor's Financial Services LLC on behalf of the American Bankers Association. The CUSIP numbers are provided for convenience of reference only. The State is not responsible for the selection of CUSIP numbers and makes no representation as to their correctness on the Series 2020 Bonds or as set forth in this Official Statement.

INFORMATION CONCERNING OFFERING RESTRICTIONS IN CERTAIN JURISDICTIONS OUTSIDE THE UNITED STATES

REFERENCES IN THIS SECTION TO THE "ISSUER" MEAN THE STATE OF HAWAII DEPARTMENT OF TRANSPORTATION AND REFERENCES TO "SERIES 2020 BONDS" OR "SECURITIES" MEAN THE STATE OF HAWAII HARBOR SYSTEM REVENUE BONDS, SERIES A OF 2020 (AMT), TAXABLE SERIES B OF 2020 AND SERIES C OF 2020 (NON-AMT).

THE INFORMATION UNDER THIS CAPTION HAS BEEN FURNISHED BY THE UNDERWRITER, AND THE ISSUER MAKES NO REPRESENTATION AS TO THE ACCURACY, COMPLETENESS OR ADEQUACY OF THE INFORMATION UNDER THIS CAPTION.

COMPLIANCE WITH ANY RULES OR RESTRICTIONS OF ANY JURISDICTION RELATING TO THE OFFERING, SOLICITATION AND/OR SALE OF THE SERIES 2020 BONDS IS THE RESPONSIBILITY OF THE UNDERWRITER, AND THE ISSUER SHALL NOT HAVE ANY RESPONSIBILITY OR LIABILITY IN CONNECTION THEREWITH. NO ACTION HAS BEEN TAKEN BY THE ISSUER THAT WOULD PERMIT THE OFFERING OR SALE OF THE SERIES 2020 BONDS, OR POSSESSION OR DISTRIBUTION OF THIS OFFICIAL STATEMENT OR ANY OTHER OFFERING OR PUBLICITY MATERIAL RELATING TO THE SERIES 2020 BONDS, OR ANY INFORMATION RELATING TO THE PRICING OF THE SERIES 2020 BONDS, IN ANY NON-U.S. JURISDICTION WHERE ACTION FOR THAT PURPOSE IS REQUIRED.

MINIMUM UNIT SALES

THE SERIES 2020 BONDS WILL TRADE AND SETTLE ON A UNIT BASIS (ONE UNIT EQUALING ONE SERIES 2020 BOND OF US $5,000 PRINCIPAL AMOUNT). FOR ANY SALES MADE OUTSIDE THE UNITED STATES, THE MINIMUM PURCHASE AND TRADING AMOUNT IS 30 UNITS (BEING 30 SERIES 2020 BONDS IN AN AGGREGATE PRINCIPAL AMOUNT OF US $150,000.00).

NOTICE TO PROSPECTIVE INVESTORS IN CANADA

THE SERIES 2020 BONDS MAY BE SOLD ONLY TO PURCHASERS PURCHASING, OR DEEMED TO BE PURCHASING, AS PRINCIPAL THAT ARE ACCREDITED INVESTORS, AS DEFINED IN NATIONAL INSTRUMENT 45-106 PROSPECTUS EXEMPTIONS OR SUBSECTION 73.3(1) OF THE SECURITIES ACT (ONTARIO), AND ARE PERMITTED CLIENTS, AS DEFINED IN NATIONAL INSTRUMENT 31-103 REGISTRATION REQUIREMENTS, EXEMPTIONS AND ONGOING REGISTRANT OBLIGATIONS. ANY RESALE OF THE SERIES 2020 BONDS MUST BE MADE IN ACCORDANCE WITH AN EXEMPTION FROM, OR IN A TRANSACTION NOT SUBJECT TO, THE PROSPECTUS REQUIREMENTS OF APPLICABLE SECURITIES LAWS.

SECURITIES LEGISLATION IN CERTAIN PROVINCES OR TERRITORIES OF CANADA MAY PROVIDE A PURCHASER WITH REMEDIES FOR RESCISSION OR DAMAGES IF THIS OFFICIAL STATEMENT (INCLUDING ANY AMENDMENT THERETO) CONTAINS A MISREPRESENTATION, PROVIDED THAT THE REMEDIES FOR RESCISSION OR DAMAGES ARE EXERCISED BY THE PURCHASER WITHIN THE TIME LIMIT PRESCRIBED BY THE SECURITIES LEGISLATION OF THE PURCHASER'S PROVINCE OR TERRITORY. THE PURCHASER SHOULD REFER TO ANY APPLICABLE PROVISIONS OF THE SECURITIES LEGISLATION OF THE PURCHASER'S PROVINCE OR TERRITORY FOR PARTICULARS OF THESE RIGHTS OR CONSULT WITH A LEGAL ADVISOR.

PURSUANT TO SECTION 3A.3 (OR, IN THE CASE OF SECURITIES ISSUED OR GUARANTEED BY THE GOVERNMENT OF A NON-CANADIAN JURISDICTION, SECTION 3A.4) OF NATIONAL INSTRUMENT 33-105 UNDERWRITING CONFLICTS ("NI 33-105"), THE UNDERWRITER IS NOT REQUIRED TO COMPLY WITH THE DISCLOSURE REQUIREMENTS OF NI 33-105 REGARDING UNDERWRITER CONFLICTS OF INTEREST IN CONNECTION WITH THIS OFFERING.

NOTICE TO PROSPECTIVE INVESTORS IN THE EUROPEAN ECONOMIC AREA AND THE UNITED KINGDOM

THIS OFFICIAL STATEMENT HAS BEEN PREPARED ON THE BASIS THAT ALL OFFERS OF THE SECURITIES TO ANY PERSON THAT IS LOCATED WITHIN A MEMBER STATE OF THE EUROPEAN ECONOMIC AREA ("EEA") OR THE UNITED KINGDOM WILL BE MADE PURSUANT TO AN EXEMPTION UNDER ARTICLE 1(4) REGULATION (EU) 2017/1129 (THE "PROSPECTUS REGULATION") FROM THE REQUIREMENT TO PRODUCE A PROSPECTUS FOR OFFERS OF THE SECURITIES. ACCORDINGLY, ANY PERSON MAKING OR INTENDING TO MAKE ANY OFFER TO ANY PERSON LOCATED WITHIN A MEMBER STATE OF THE EEA OR THE UNITED KINGDOM OF THE SECURITIES SHOULD ONLY DO SO IN CIRCUMSTANCES IN WHICH NO OBLIGATION ARISES FOR THE ISSUER OR ANY OF THE INITIAL PURCHASERS TO PRODUCE A PROSPECTUS OR SUPPLEMENT FOR SUCH AN OFFER. NEITHER THE ISSUER NOR THE INITIAL PURCHASERS HAVE AUTHORIZED, NOR DO THEY AUTHORIZE, THE MAKING OF ANY OFFER OF SECURITIES THROUGH ANY FINANCIAL INTERMEDIARY, OTHER THAN OFFERS MADE BY THE INITIAL PURCHASERS, WHICH CONSTITUTE THE FINAL PLACEMENT OF THE SECURITIES CONTEMPLATED IN THIS OFFICIAL STATEMENT.

THE OFFER OF ANY SECURITIES WHICH IS THE SUBJECT OF THE OFFERING CONTEMPLATED BY THIS OFFICIAL STATEMENT IS NOT BEING MADE AND WILL NOT BE MADE TO THE PUBLIC IN ANY MEMBER STATE OF THE EEA OR THE UNITED KINGDOM, OTHER THAN: (A) TO ANY LEGAL ENTITY WHICH IS A "QUALIFIED INVESTOR" AS SUCH TERM IS DEFINED IN THE PROSPECTUS REGULATION; (B) TO FEWER THAN 150 NATURAL OR LEGAL PERSONS (OTHER THAN "QUALIFIED INVESTORS" AS SUCH TERM IS DEFINED IN THE PROSPECTUS REGULATION); OR (C) IN ANY OTHER CIRCUMSTANCES FALLING WITHIN ARTICLE 1(4) OF THE PROSPECTUS REGULATION, SUBJECT TO OBTAINING THE PRIOR CONSENT OF THE RELEVANT UNDERWRITER FOR ANY SUCH OFFER; PROVIDED THAT NO SUCH OFFER OF THE SECURITIES SHALL REQUIRE THE ISSUER OR THE INITIAL PURCHASERS TO PUBLISH A PROSPECTUS PURSUANT TO ARTICLE 3 OF THE PROSPECTUS REGULATION OR A SUPPLEMENT TO A PROSPECTUS PURSUANT TO ARTICLE 23 OF THE PROSPECTUS REGULATION.

FOR THE PURPOSES OF THIS PROVISION, THE EXPRESSION AN "OFFER OF SECURITIES TO THE PUBLIC" IN RELATION TO THE SECURITIES IN ANY MEMBER STATE OF THE EEA OR THE UNITED KINGDOM MEANS THE COMMUNICATION IN ANY FORM AND BY ANY MEANS OF SUFFICIENT INFORMATION ON THE TERMS OF THE OFFER AND THE SECURITIES TO BE OFFERED SO AS TO ENABLE AN INVESTOR TO DECIDE TO PURCHASE THE SECURITIES.

EACH SUBSCRIBER FOR OR PURCHASER OF THE SERIES 2020 BONDS IN THE OFFERING LOCATED WITHIN A MEMBER STATE OR THE UNITED KINGDOM WILL BE DEEMED TO HAVE REPRESENTED, ACKNOWLEDGED AND AGREED THAT IT IS A "QUALIFIED INVESTOR" AS DEFINED IN THE PROSPECTUS REGULATION. THE ISSUER AND EACH UNDERWRITER AND OTHERS WILL RELY ON THE TRUTH AND ACCURACY OF THE FOREGOING REPRESENTATION, ACKNOWLEDGEMENT AND AGREEMENT.

PROHIBITION OF SALES TO EEA OR THE UNITED KINGDOM RETAIL INVESTORS – THE SERIES 2020 BONDS ARE NOT INTENDED TO BE OFFERED, SOLD OR OTHERWISE MADE AVAILABLE TO AND SHOULD NOT BE OFFERED, SOLD OR OTHERWISE MADE AVAILABLE TO ANY RETAIL INVESTOR IN THE EEA OR IN THE UNITED KINGDOM. FOR THESE PURPOSES, A RETAIL INVESTOR MEANS A PERSON WHO IS ONE (OR MORE) OF: (I) A RETAIL CLIENT AS DEFINED IN POINT (11) OF ARTICLE 4(1) OF DIRECTIVE 2014/65/EU (AS AMENDED, "MIFID II"); OR (II) A CUSTOMER WITHIN THE MEANING OF DIRECTIVE (EU) 2016/97 (THE "INSURANCE DISTRIBUTION DIRECTIVE"), WHERE THAT CUSTOMER WOULD NOT QUALIFY AS A PROFESSIONAL CLIENT AS DEFINED IN POINT (10) OF ARTICLE 4(1) OF MIFID II. CONSEQUENTLY NO KEY INFORMATION DOCUMENT REQUIRED BY REGULATION (EU) NO 1286/2014 (THE "PRIIPS REGULATION") FOR OFFERING OR SELLING THE NOTES OR OTHERWISE MAKING THEM AVAILABLE TO RETAIL INVESTORS IN THE EEA OR IN THE UNITED KINGDOM HAS BEEN PREPARED AND THEREFORE

OFFERING OR SELLING THE NOTES OR OTHERWISE MAKING THEM AVAILABLE TO ANY RETAIL INVESTOR IN THE EEA OR IN THE UNITED KINGDOM MAY BE UNLAWFUL UNDER THE PRIIPS REGULATION.

NOTICE TO PROSPECTIVE INVESTORS IN THE UNITED KINGDOM

THIS OFFICIAL STATEMENT IS FOR DISTRIBUTION ONLY TO, AND IS DIRECTED SOLELY AT, PERSONS WHO (I) ARE OUTSIDE THE UNITED KINGDOM, (II) ARE INVESTMENT PROFESSIONALS, AS SUCH TERM IS DEFINED IN ARTICLE 19(5) OF THE FINANCIAL SERVICES AND MARKETS ACT 2000 (FINANCIAL PROMOTION) ORDER 2005, AS AMENDED (THE "FINANCIAL PROMOTION ORDER"), (III) ARE PERSONS FALLING WITHIN ARTICLE 49(2)(A) TO (D) OF THE FINANCIAL PROMOTION ORDER, OR (IV) ARE PERSONS TO WHOM AN INVITATION OR INDUCEMENT TO ENGAGE IN INVESTMENT ACTIVITY (WITHIN THE MEANING OF SECTION 21 OF THE FINANCIAL SERVICES AND MARKETS ACT 2000) IN CONNECTION WITH THE ISSUE OR SALE OF ANY SERIES 2020 BONDS MAY OTHERWISE BE LAWFULLY COMMUNICATED OR CAUSED TO BE COMMUNICATED (ALL SUCH PERSONS TOGETHER BEING REFERRED TO AS "RELEVANT PERSONS"). THIS OFFICIAL STATEMENT IS DIRECTED ONLY AT RELEVANT PERSONS AND MUST NOT BE ACTED ON OR RELIED ON BY PERSONS WHO ARE NOT RELEVANT PERSONS. ANY INVESTMENT OR INVESTMENT ACTIVITY TO WHICH THIS OFFICIAL STATEMENT RELATES IS AVAILABLE ONLY TO RELEVANT PERSONS AND WILL BE ENGAGED IN ONLY WITH RELEVANT PERSONS. ANY PERSON WHO IS NOT A RELEVANT PERSON SHOULD NOT ACT OR RELY ON THIS OFFICIAL STATEMENT OR ANY OF ITS CONTENTS.

NOTICE TO PROSPECTIVE INVESTORS IN SWITZERLAND

THE SERIES 2020 BONDS MAY NOT BE PUBLICLY OFFERED, DIRECTLY OR INDIRECTLY, IN SWITZERLAND WITHIN THE MEANING OF THE SWISS FINANCIAL SERVICES ACT (THE "FINSA"), AND NO APPLICATION HAS BEEN OR WILL BE MADE TO ADMIT THE SERIES 2020 BONDS TO TRADING ON ANY TRADING VENUE (EXCHANGE OR MULTILATERAL TRADING FACILITY) IN SWITZERLAND. NEITHER THIS OFFICIAL STATEMENT NOR ANY OTHER OFFERING OR MARKETING MATERIAL RELATING TO THE SERIES 2020 BONDS (1) CONSTITUTES A PROSPECTUS PURSUANT TO THE FINSA OR (2) HAS BEEN OR WILL BE FILED WITH OR APPROVED BY A SWISS REVIEW BODY PURSUANT TO ARTICLE 52 OF THE FINSA, AND NEITHER THIS OFFICIAL STATEMENT NOR ANY OTHER OFFERING OR MARKETING MATERIAL RELATING TO THE SERIES 2020 BONDS MAY BE PUBLICLY DISTRIBUTED OR OTHERWISE MADE PUBLICLY AVAILABLE IN SWITZERLAND.

NOTICE TO PROSPECTIVE INVESTORS IN HONG KONG

WARNING. THE CONTENTS OF THIS OFFICIAL STATEMENT HAVE NOT BEEN REVIEWED BY ANY REGULATORY AUTHORITY IN HONG KONG. YOU ARE ADVISED TO EXERCISE CAUTION IN RELATION TO THE OFFER OF THE SERIES 2020 BONDS. IF YOU ARE IN ANY DOUBT ABOUT ANY OF THE CONTENTS OF THIS DOCUMENT, YOU SHOULD OBTAIN INDEPENDENT PROFESSIONAL ADVICE.

THIS DOCUMENT HAS NOT BEEN, AND WILL NOT BE, REGISTERED AS A PROSPECTUS IN HONG KONG NOR HAS IT BEEN APPROVED BY THE SECURITIES AND FUTURES COMMISSION OF HONG KONG PURSUANT TO THE SECURITIES AND FUTURES ORDINANCE (CHAPTER 571 OF THE LAWS OF HONG KONG) ("SFO"). THE SERIES 2020 BONDS MAY NOT BE OFFERED OR SOLD IN HONG KONG BY MEANS OF THIS DOCUMENT OR ANY OTHER DOCUMENT, AND THIS DOCUMENT MUST NOT BE ISSUED, CIRCULATED OR DISTRIBUTED IN HONG KONG, OTHER THAN TO `PROFESSIONAL INVESTORS' AS DEFINED IN THE SFO AND ANY RULES MADE THEREUNDER. IN ADDITION, NO PERSON MAY ISSUE OR HAVE IN ITS POSSESSION FOR THE PURPOSES OF ISSUE, WHETHER IN HONG KONG OR ELSEWHERE, ANY ADVERTISEMENT, INVITATION OR DOCUMENT RELATING TO THE SERIES 2020 BONDS, WHICH IS DIRECTED AT, OR THE CONTENTS OF WHICH ARE LIKELY TO BE ACCESSED OR READ BY, THE PUBLIC OF HONG KONG (EXCEPT IF PERMITTED

TO DO SO UNDER THE SECURITIES LAWS OF HONG KONG) OTHER THAN WITH RESPECT TO SERIES 2020 BONDS WHICH ARE OR ARE INTENDED TO BE DISPOSED OF ONLY (A) TO PERSONS OUTSIDE HONG KONG, OR (B) TO `PROFESSIONAL INVESTORS' AS DEFINED IN THE SFO AND ANY RULES MADE THEREUNDER.

NOTICE TO PROSPECTIVE INVESTORS IN JAPAN

THE SERIES 2020 BONDS HAVE NOT BEEN AND WILL NOT BE REGISTERED UNDER ARTICLE 4, PARAGRAPH 1 OF THE FINANCIAL INSTRUMENTS AND EXCHANGE ACT OF JAPAN (ACT NO.25 OF 1948, AS AMENDED THE "FIEA"). IN RELIANCE UPON THE EXEMPTION FROM THE REGISTRATION REQUIREMENTS SINCE THE OFFERING CONSTITUTES THE PRIVATE PLACEMENT TO QUALIFIED INSTITUTIONAL INVESTORS ONLY AS PROVIDED FOR IN "I" OF ARTICLE 2, PARAGRAPH 3, ITEM 2 OF THE FIEA. A TRANSFEROR OF THE SERIES 2020 BONDS SHALL NOT TRANSFER OR RESELL THEM EXCEPT WHERE A TRANSFEREE IS A QUALIFIED INSTITUTIONAL INVESTORS AS DEFINED UNDER ARTICLE 10 OF THE CABINET OFFICE ORDINANCE CONCERNING DEFINITIONS PROVIDED IN ARTICLE 2 OF THE FIEA (THE MINISTRY OF FINANCE ORDINANCE NO.14 OF 1993, AS AMENDED).

NOTICE TO PROSPECTIVE INVESTORS IN SOUTH KOREA

THIS OFFICIAL STATEMENT IS NOT, AND UNDER NO CIRCUMSTANCES IS TO BE CONSIDERED AS, A PUBLIC OFFERING OF SECURITIES IN SOUTH KOREA FOR THE PURPOSES OF THE FINANCIAL INVESTMENT SERVICES AND CAPITAL MARKETS ACT OF KOREA. THE SERIES 2020 BONDS HAVE NOT BEEN AND WILL NOT BE REGISTERED WITH THE FINANCIAL SERVICES COMMISSION OF SOUTH KOREA FOR PUBLIC OFFERING IN SOUTH KOREA UNDER THE FINANCIAL INVESTMENT SERVICES AND CAPITAL MARKETS ACT AND ITS SUBORDINATE DECREES AND REGULATIONS (COLLECTIVELY, THE "FSCMA"). THE SERIES 2020 BONDS MAY NOT BE OFFERED, REMARKETED, SOLD OR DELIVERED, DIRECTLY OR INDIRECTLY, OR OFFERED, REMARKETED OR SOLD TO ANY PERSON FOR RE-OFFERING OR RESALE, DIRECTLY OR INDIRECTLY, IN SOUTH KOREA OR TO ANY RESIDENT OF SOUTH KOREA (AS DEFINED IN THE FOREIGN EXCHANGE TRANSACTIONS LAW OF SOUTH KOREA AND ITS SUBORDINATE DECREES AND REGULATIONS (COLLECTIVELY, THE "FETL")) WITHIN ONE YEAR OF THE ISSUANCE OF THE SERIES 2020 BONDS, EXCEPT AS OTHERWISE PERMITTED UNDER APPLICABLE SOUTH KOREAN LAWS AND REGULATIONS, INCLUDING THE FSCMA AND THE FETL.

NOTICE TO PROSPECTIVE INVESTORS IN TAIWAN

THE SERIES 2020 BONDS HAVE NOT BEEN AND WILL NOT BE REGISTERED OR FILED WITH, OR APPROVED BY THE FINANCIAL SUPERVISORY COMMISSION OF TAIWAN, THE REPUBLIC OF CHINA ("TAIWAN") AND/OR OTHER REGULATORY AUTHORITY OR AGENCY OF TAIWAN PURSUANT TO RELEVANT SECURITIES LAWS AND REGULATIONS OF TAIWAN AND MAY NOT BE ISSUED, OFFERED, OR SOLD IN TAIWAN THROUGH A PUBLIC OFFERING OR IN CIRCUMSTANCES WHICH CONSTITUTE AN OFFER WITHIN THE MEANING OF THE SECURITIES AND EXCHANGE ACT OF TAIWAN OR RELEVANT LAWS AND REGULATIONS THAT REQUIRES A REGISTRATION, FILING OR APPROVAL OF THE FINANCIAL SUPERVISORY COMMISSION AND/OR OTHER REGULATORY AUTHORITY OR AGENCY OF TAIWAN. THE SERIES 2020 BONDS MAY BE MADE AVAILABLE OUTSIDE TAIWAN FOR PURCHASE OUTSIDE TAIWAN BY INVESTORS RESIDING IN TAIWAN DIRECTLY, BUT MAY NOT BE OFFERED OR SOLD IN TAIWAN EXCEPT TO QUALIFIED INVESTORS VIA A TAIWAN LICENSED INTERMEDIARY TO THE EXTENT PERMITTED BY APPLICABLE LAWS OR REGULATIONS.

STATE OF HAWAII

David Y. Ige, Governor
Josh Green, Lieutenant Governor

DEPARTMENT OF TRANSPORTATION

Jade T. Butay, Director

First Deputy Director	Lynn A.S. Araki-Regan
Deputy Director, Harbors Division	Derek J. Chow
Deputy Director, Airports Division	Ross M. Higashi
Deputy Director, Highways Division	Edwin H. Sniffen
Administrator, Harbors Division	Davis K. Yogi

SPECIAL SERVICES

U.S. Bank National Association
Paying Agent, Transfer Agent and Registrar

Katten Muchin Rosenman LLP
New York, New York
Bond Counsel

Hilltop Securities Inc.
Municipal Advisor

CAUTIONARY STATEMENTS REGARDING FORWARD-LOOKING STATEMENTS IN THIS OFFICIAL STATEMENT

Certain statements included or incorporated by reference in this Official Statement constitute forward-looking statements. Such statements are generally identifiable by the terminology used such as "plan," "expect," "estimate," "project," "budget" or other similar words. The achievement of certain results or other expectations contained in such forward-looking statements involve known and unknown risks, uncertainties and other factors which may cause actual results, performance or achievements described to be materially different from any future results, performance or achievements expressed or implied by such forward-looking statements. No assurance is given that actual results will meet the forecasts of the Department of Transportation, Harbors Division in any way, regardless of the level of optimism communicated in the information. The Harbors Division is not obligated to issue any updates or revisions to the forward-looking statements if or when its expectations, or events, conditions or circumstances on which such statements are based occur.

Prospective financial information in this Official Statement was not prepared with a view toward compliance with the guidelines established by the American Institute of Certified Public Accountants for preparation and presentation of prospective financial information. Prospective financial information included in this Official Statement has been prepared by, and is the responsibility of, the Harbors Division management. KKDLY LLC, independent auditors, which audited the Harbors Division financial statements, has neither examined nor compiled this prospective financial information and, accordingly, such firm does not express an opinion or offer any other form of assurance with respect thereto. The report of KKDLY LLC included in APPENDIX A of this Official Statement relates to the Harbors Division's historical financial information. It does not extend to the prospective financial information and should not be read to do so.

THE ACHIEVEMENT OF CERTAIN RESULTS OR OTHER EXPECTATIONS CONTAINED IN SUCH FORWARD-LOOKING STATEMENTS INVOLVE KNOWN AND UNKNOWN RISKS, UNCERTAINTIES AND OTHER FACTORS WHICH MAY CAUSE ACTUAL RESULTS, PERFORMANCE OR ACHIEVEMENTS DESCRIBED TO BE MATERIALLY DIFFERENT FROM ANY FUTURE RESULTS, PERFORMANCE OR ACHIEVEMENTS EXPRESSED OR IMPLIED BY SUCH FORWARD-LOOKING STATEMENTS. THE HARBORS DIVISION DOES NOT PLAN TO ISSUE ANY UPDATES OR REVISIONS TO THOSE FORWARD-LOOKING STATEMENTS IF OR WHEN ANY OF ITS EXPECTATIONS, OR EVENTS, CONDITIONS OR CIRCUMSTANCES ON WHICH SUCH STATEMENTS ARE BASED OCCUR.

*   *   *   *   *

The information contained in this Official Statement has been obtained from the State of Hawaii and other sources deemed reliable. No guaranty is made, however, as to the accuracy or completeness of such information. The Underwriter has provided the following sentence for inclusion in this Official Statement. The Underwriter has reviewed the information in this Official Statement in accordance with, and as part of, its responsibilities to investors under the federal securities laws as applied to the facts and circumstances of this transaction, but the Underwriter does not guarantee the accuracy or completeness of such information. This Official Statement, which includes the cover page and appendices, does not constitute an offer to sell the Series 2020 Bonds in any state to any person to whom it is unlawful to make such offer in such state. No dealer, salesman or other person has been authorized to give any information or to make any representations, other than those contained in this Official Statement, in connection with the offering of the Series 2020 Bonds, and, if given or made, such information or representations must not be relied upon. The information contained herein is subject to change without notice and neither the delivery of this Official Statement nor any sale hereunder at any time implies that the information contained herein is correct as of any time subsequent to its date.

THE SERIES 2020 BONDS HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED, IN RELIANCE UPON AN EXEMPTION CONTAINED IN SUCH ACT. THE SERIES 2020 BONDS HAVE NOT BEEN REGISTERED OR QUALIFIED UNDER THE SECURITIES LAWS OF ANY STATE.

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OFFICIAL STATEMENT

$266,550,000

STATE OF HAWAII
Harbor System Revenue Bonds

$147,520,000 **Series A of 2020** **(AMT)**	**$15,685,000** **Taxable Series B of 2020**	**$103,345,000** **Series C of 2020** **(Non-AMT)**

INTRODUCTION

This Official Statement, which includes the cover, the inside cover pages and appendices (the "Official Statement"), provides information with respect to the issuance and sale of $266,550,000 principal amount of State of Hawaii Harbor System Revenue Bonds, Series A of 2020 (AMT) (the "*Series 2020A Bonds*"), Taxable Series B of 2020 (the "*Series 2020B Bonds*") and Series C of 2020 (Non-AMT) (the "*Series 2020C Bonds*" and, together with the Series 2020A Bonds and Series 2020B Bonds, the "*Series 2020 Bonds*"). Capitalized terms not otherwise defined in this Official Statement shall have the respective meanings given to such terms in APPENDIX C – "SUMMARY OF CERTAIN PROVISIONS OF THE CERTIFICATE – Definitions of Certain Terms."

The State of Hawaii (the "State") will issue the Series 2020 Bonds pursuant to the Constitution, the laws of the State and the Certificate of the Director of Transportation of the State, dated as of March 1, 1997, as heretofore supplemented and amended and as further supplemented and amended by the Tenth Supplemental Certificate providing for the issuance of the Series 2020 Bonds. The original certificate, as supplemented and amended and as hereafter supplemented and amended, is referred to as the "Certificate" or the "1997 Certificate." See "THE SERIES 2020 BONDS" for a description of the Series 2020 Bonds. The Series 2020 Bonds, together with the $145,180,000 aggregate principal amount of outstanding Harbor System Revenue Bonds previously issued under the Certificate (excluding the Refunded Bonds, as defined below) and any additional parity Bonds which may be issued in the future under the Certificate, are collectively referred to herein as the "Bonds."

The Series 2020 Bonds are being issued: (i) in the case of the Series 2020A Bonds and the Series 2020B Bonds, to reimburse the State for certain expenditures paid for Capital Improvement Projects listed in its declaration of official intent dated October 17, 2017, pursuant to the extent and within the deadlines of Treasury Regulations Sections 1.142-4 and 1.150-2 for the design and construction of the following Improvements to the Harbor System: land-side improvements for the Kapalama Container Terminal, piers and wharves abutting and adjacent to the Kapalama Container Terminal located at Honolulu Harbor ("Kapalama Container Terminal Phase II"), Fuel Pier Improvements at Kalaeloa Harbor, new Piers and Wharf Facilities to possibly include Piers 8, 9 and 10 at Kalaeloa Harbor, and Container Yards at Kahului Harbor; for the purchase of various land parcels located in the Kahului Harbor area and adjacent to Pier 1 Hilo Harbor, and to finance certain other capital improvements to the Harbor System operated by the Department of Transportation of the State, Harbors Division (the "Department"), as described below under "PLAN OF FINANCING–Capital Improvement Projects," (ii) to refund certain outstanding Harbor System Revenue Bonds, as described below under "PLAN OF FINANCING–Refunding Plan," (iii) to fund a deposit into the Series 2020 Debt Service Reserve Subaccount within the Series 1997 Certificate Harbor Debt Service Reserve Account, and (iv) to provide for the costs of issuance of the Series 2020 Bonds.

The Bonds, including the Series 2020 Bonds, are special limited obligations of the State, payable solely from and secured solely by the Net Revenues of the Harbor System. As defined in the Certificate, such Net Revenues consist of the Revenues of the Harbor System remaining after payment of the costs of operating and maintaining the Harbor System. The Series 2020 Bonds do not constitute a general or moral obligation of the State nor a charge upon the general fund of the State. The full faith and credit of neither the State nor any political subdivision of the State is pledged to the payment of or as security for the Series 2020 Bonds. All Bonds, including the Series 2020 Bonds, are and will be secured equally and ratably by the Net Revenues. See "SECURITY FOR THE BONDS" and "SOURCES OF REVENUES" for a description of the security for the Bonds and sources of Revenues.

The State is an archipelago located in the Pacific Ocean in the Northern Hemisphere, mostly below the Tropic of Cancer, over 2,000 miles from the nearest continent. The State imports much of the food and most of the building materials, manufactured goods, clothing and energy products used in the State by its more than 1.4 million residents and 10 million annual visitors (pre-COVID-19 pandemic). Nearly all goods imported into, exported from and sent between the islands of the State are shipped through the ports that comprise the Harbor System, other than crude oil cargo that is shipped through privately-owned offshore mooring and fuel shipment facilities located near the Kalaeloa Barbers Point Harbor. See "THE HARBOR SYSTEM—Summary of Harbor System Operations." There are no economically viable alternatives to transport bulk goods to, from and among the islands. Therefore, the Harbor System is infrastructure essential to the maintenance and growth of the State's economy and for the sustainability of the State's citizens and its visitors.

The Harbor System is the statewide system of commercial harbors comprised of ten harbors. See "THE HARBOR SYSTEM." The Harbor System is owned by the State and is operated as a single statewide system for management and financial purposes on behalf of the State by the Department through its Harbors Division (the "Harbors Division"). See "DEPARTMENT OF TRANSPORTATION." The Department is obligated, by Hawaii Revised Statutes ("HRS"), to impose and collect rates and charges for the Harbor System services and properties to generate Revenues that are sufficient to pay debt service on the Bonds and certain other outstanding obligations of the Department, to pay the costs of operation, maintenance and repair of the Harbor System and to comply with the terms of the Certificate. See "SECURITY FOR THE BONDS–Rates and Charges."

The term "Harbor System" is used synonymously in this Official Statement with the term "Undertaking" under the Certificate. As defined in the Certificate and set forth under "Definitions of Certain Terms" in APPENDIX C hereto, the "Undertaking" includes all harbors, harbor and waterfront improvements, ports, docks, wharves, quays, bulkheads, landings and other related facilities and properties belonging to or controlled by the State and under the administration, jurisdiction, control and management of the Department, except facilities used principally for recreational boating or fishing. The Harbor System excludes any State ferry system, any properties disposed of or transferred pursuant to the Certificate, any properties subject to a Net Rent Lease executed in accordance with the Certificate, and properties in Kewalo Basin and Fort Armstrong transferred from the Department to the Hawaii Community Development Authority. See "SOURCES OF REVENUES–General."

The cover page of this Official Statement and this Introduction contain certain information for general reference only. Investors are advised to read this entire Official Statement, which includes the cover, the inside cover pages and appendices, to obtain information essential to the making of an informed investment decision. This Official Statement contains descriptions of the Department and the Harbor System, summaries of the Series 2020 Bonds, the security for the Bonds, the sources of Revenues, and certain provisions of the Certificate. All references to agreements and documents are qualified in their entirety by the definitive forms of such agreements and documents. All references to the Certificate and to the Series 2020 Bonds are qualified by the definitive forms of such Certificate and the Series 2020 Bonds. Copies of the Certificate are available for examination at the offices of the Harbors Division. Any statement or information involving matters of opinion or estimates are represented as opinions or estimates made in good faith, but no assurance can be given that facts will materialize as so opined or estimated.

COVID-19 PANDEMIC

The worldwide outbreak of a highly contagious, upper respiratory tract illness caused by a novel strain of coronavirus ("COVID-19") has caused significant adverse health and financial impacts throughout the world, and disruptions to domestic and international marine travel, including both passenger and cargo operations. COVID-19 has had significant negative and adverse effects on the economies of the State, the nation, and the world. Certain information in this Official Statement that describes historical Harbor System revenues, financial affairs, operations and general State economic conditions predates the COVID-19 pandemic or was prepared before the outbreak of COVID-19, and only limited subsequent data is available. All of this information should be considered in light of the negative and adverse impacts from COVID-19 subsequent to the dates of such data. The effects of COVID-19 and actions taken at State and national levels to halt its spread have had, and are expected to continue to have, a significant adverse effect on the economy of the State and the revenues, financial condition and operations of the Harbor System. COVID-19 developments, and associated governmental and regulatory responses, are rapidly changing and cannot be predicted with any assurance.

The World Health Organization declared the spread of COVID-19 to be a pandemic, and the President of the United States, the Governor of the State and the mayors of each county have each declared states of emergency. Since the first case was reported on February 17, 2020, there have been over 16,000 confirmed cases of COVID-19 in the State through October 2020, the majority of confirmed cases having been identified since a "second wave" of infections began in late July 2020.

On March 4, 2020, State of Hawaii Governor David Y. Ige proclaimed the spread of COVID-19 in Hawaii to be a disaster, declared a state of emergency in the State and announced State responses, including the use of disaster relief funds, to address the spread of COVID-19. The Governor subsequently issued sixteen (16) supplemental proclamations and a series of executive orders closing non-essential business, activities and government operations for the duration of the public health emergency, which has been extended until December 31, 2020. On March 17, 2020, the Governor asked visitors to postpone their trips to the State. The State then implemented a mandatory fourteen (14) day self-quarantine requirement for all persons entering the State, as well as for inter-island travelers, as a majority of the early-detected infected persons in the State were visitors and returning residents. All arriving passengers are subject to health screenings, temperature scans and reporting requirements. The quarantine requirement for persons traveling inter-island in the State was cancelled effective on June 16, 2020, but reinstated effective August 11, 2020 for people traveling from Oahu to Hawaii island, Kauai and the islands comprising Maui County. The quarantine requirement for persons entering the State has also been extended until November 30, 2020, but effective October 15, 2020, United States travelers aged five and older who have had a negative test result from a State-approved COVID-19 testing facility administered within 72 hours of departure may enter the State without having to self-quarantine. Effective November 6, 2020, travelers from Japan who have had a negative test result from a State-approved COVID-19 testing facility administered within 72 hours of departure may also enter the State without having to self-quarantine. The counties have added post arrival testing requirements for out of state travelers. In addition, counties are authorized to approve enhanced movement quarantine areas, such as self-contained resorts, in which self-quarantined persons may freely move within the entire quarantine area. There can be no assurance that the emergency declaration, quarantine requirements and/or pre-testing quarantine exception program as currently in effect and/or as proposed will not be modified, terminated or extended, in whole or in part.

The State presently has several hundred contact tracers, each with a capacity to trace 20 people per day, and is currently training several hundred additional contact tracers. The City and County of Honolulu has announced that it will hire additional contract tracers. The State is currently conducting 1,300-1,600 tests daily and has conducted over 265,000 tests in total. The State has implemented federally-funded "surge testing" first on Oahu, which provided 47,000 tests from August 27, 2020 to September 16, 2020, then on neighbor islands.

Also, on March 4, 2020, the county mayors issued proclamations declaring a state of emergency in each county. They subsequently issued supplemental proclamations and a series of orders ("Emergency Orders") closing all non-essential business, including bars, restaurants and most retail stores, and banning public gatherings for the duration of the emergency. The Emergency Orders prohibited all non-essential travel and business activity, except designated businesses and operations in each county. The Emergency Orders initially required everyone except essential workers to shelter in place and work from home through June 2020. The Emergency Orders were modified, and most medium risk non-essential businesses had gradually been permitted to re-open in phases beginning in mid-May 2020. Shopping malls were closed for two months, except for markets, drug stores and take-out food service, until reopening was allowed with conditions and restrictions on May 15, 2020. Non-essential interisland travel was permitted between mid-June 2020 until August 11, 2020, when the 14-day self-quarantine requirement was imposed on all non-essential travelers from Oahu to the neighbor islands. Effective October 15, 2020, the negative test result may be substituted for the 14-day self-quarantine requirement for non-essential travelers from Oahu.

The Mayor of the City and County of Honolulu reinstated the prohibition on non-essential business activity for a four-week period beginning August 27, 2020. This measure required certain higher risk businesses such as retail stores, malls, non-medical personal care and gyms, that had reopened in late June 2020, to close for a four-week period before reopening on September 24, 2020. All businesses and operations permitted to reopen have been ordered to comply with social distancing requirements by requiring wearing of face masks and maintaining six feet social distancing or other safety measures for employees and members of the public. The Emergency Orders also mandate face coverings for indoor businesses and government buildings, as well as outdoors where physical distancing is not practical. Effective September 24, 2020, a new City and County of Honolulu order was issued implementing a Tier 1 recovery framework. Effective October 22, 2020, the City and County of Honolulu transitioned to Tier 2 recovery framework. These orders have allowed parks, beaches, retail business and restaurants to re-open with restrictions. The four-stage tiered recovery framework is intended to use benchmark data (declining numbers of new cases and percentage of positive tests) as a basis to loosen restrictions and progress through the tiers.

The spread of COVID-19 and the resulting responsive measures have had a negative impact on the national and international economy as well as State's economy. United States and international financial markets experienced an extreme decline, before recovering. Global crude oil prices have declined significantly. Economic activity in the State has slowed significantly, due to the closure of non-essential businesses, traveler quarantine requirements and substantial reduction in visitors to the State. Airlines have suspended nearly all flights to and from the State and the United States Mainland and Asia, resulting in an 84.6% reduction in air seat capacity. Visitor arrivals to the State dropped from an average of 30,000 to 35,000 people a day to 200 people a day in March 2020, and rate of arrivals has risen only incrementally over the next six months. In April 2020, 4,564 visitors arrived in the State, as compared to 856,250 visitors in April 2019. In September 2020, 18,868 visitors arrived in the State, as compared to 736,155 visitors in September 2019. In the first nine months of 2020, total visitor arrivals dropped 71.6% to 2,220,009. Over 5,000 visitors arrived in the State on October 15, 2020, the first day the self-quarantine requirement was modified, and visitor arrivals have increased gradually since that date.

Many of the State's major hotels have closed for the duration of the Emergency Orders through November 2020. Oahu's hotel occupancy rate in April 2020, the first full month of the quarantine, was 8.0%, a 72% decline from April 2019. Waikiki's hotel occupancy rate in April 2020 was 5.4%. There has been little improvement during the duration of the self-quarantine requirement for travelers. In September 2020, the statewide hotel occupancy rate was 19.6%, but if calculated based the available supply of rooms for September 2019, was 11.2%. The State's seasonally adjusted unemployment rate has increased from less than 3% before the COVID-19 pandemic to 13.4% in June 2020, and to 15% in September 2020.

Before the COVID-19 pandemic, defense spending in the State accounted for 7.7% of the State's gross domestic product, making it the second-largest industry in the State. According to the Hawaii Department of Business, Economic Development and Tourism recently launched website — defenseeconomy.hawaii.gov - military spending brought in $7.2 billion to the State in 2018 in the form of $2.3 billion in contracts for Hawaii companies and $4.9 billion in payroll for 72,100 active-duty, national guard and reserve personnel and civilian workers. The site also includes data on the amounts of spending by individual agencies and companies that were awarded contracts. Military spending has been stable through the pandemic in 2020, supporting 49,000 local jobs and helping to soften the impact of the pandemic's effect on economy. During August 2020, State companies were awarded a total of $337 million in military contracts, including one $245 million five-year construction contract awarded to four local companies and two businesses from the United States Mainland. The Harbors Division directly benefits from any construction projects conducted in the State by local companies, as the majority of construction materials for such projects are shipped through the Harbor System.

IMPACT OF COVID-19 PANDEMIC ON THE HARBOR SYSTEM

The COVID-19 pandemic has had and is expected to continue to have an impact on the Harbor System's operations and finances. The impact of the pandemic to date has not been as severe as the impact on air transportation to Hawaii and other facets of the State's visitor industry due to the monopolistic and essential nature of the ports comprising the Harbor System. The Hawaii Department of Business, Economic Development and Tourism has estimated that between 80% to 90% of food consumed in the State is imported, as are most clothing, consumer goods, heavy equipment, construction materials, automobiles and fuel, including military requirements. These goods primarily arrive by ships and not by air.

As noted in Table 7, Table 8 and Table 9 below the Harbor System experienced a decrease in cargo volume tonnage in the fiscal year ended June 30, 2020 as compared to fiscal year ended June 30, 2019. Approximately a quarter of fiscal year 2020 was affected by the COVID-19 pandemic, but cargo volume in short tons and cargo related revenues decreased by approximately 7% and 9%, respectively.

As of June 30, 2020, the Harbor System's portfolio of cash, U.S. government securities and certificates of deposit totaled $422 million (unaudited), primarily in liquid investments maturing in less than one year. The balance of unrestricted cash in the Harbor Special Fund on June 30, 2020, was $199 million. Unrestricted days' cash on hand as of June 30, 2020, was sufficient to fund more than 1,290 days of operations. The Harbor System anticipates that it will be able to apply some cash reserves to fund portions of projects in the Capital Improvements Program.

For a discussion of the impact of COVID-19 on the revenues of the Harbor System for fiscal year ended June 30, 2020, see "THE HARBOR SYSTEM - Management Discussion and Analysis – Operating Revenues" "– Services Revenues" "– Rental Revenues" and "–Operating Expenses" below. It is likely that the fiscal impact of the COVID-19 pandemic on the Harbor System will continue to change as the situation further develops. The fiscal impact will depend on future impacts outside of the Harbor System's control, including actions of the federal government and the State.

PLAN OF FINANCING

Authority for Issuance

Article VII, Section 12 of the State Constitution and Part III, Chapter 39, HRS ("HRS"), as amended (collectively, the "General Revenue Bond Law"), permit the issuance of revenue Bonds of the State payable from and secured by the Revenues upon the approval of a majority of the members of each house of the Legislature and pursuant to a Certificate of the Director of the Department (the "Director"), which becomes effective upon filing with the Director of Finance. The General Revenue Bond Law limits the maximum maturity of revenue Bonds and also sets forth provisions for the sale, method of execution and other details of all revenue Bonds. The Legislature from time to time enacts laws (including the general appropriations acts) authorizing the issuance of revenue Bonds (without fixing any particular details), defining the purposes for which the Bonds are to be issued and specifying the amount of the proceeds of such Bonds which may be applied to such purposes; provided that the Department, with the approval of the Governor, may issue refunding Bonds without further authorization of the Legislature. Pursuant to the General Revenue Bond Law, the Director has issued the Certificate, which, under State law, constitutes the security document pursuant to which all Bonds are issued and secured. The Certificate provides the terms of the Bonds including principal amounts, interest rates, maturities, redemption provisions and the covenants of the Department. The Series 2020 Bonds are being issued pursuant to the Certificate and the General Revenue Bond Law.

Capital Improvement Projects

A portion of the proceeds of the Series 2020A Bonds and the Series 2020B Bonds will be used: (1) to reimburse the State for certain expenditures paid for Capital Improvement Projects including the design, implementation, land acquisition, construction, improvements, betterment and replacements to harbor dock, wharf and storage facilities, including equipment and other property functionally related thereto, located at Honolulu Harbor, Oahu; Kalaeloa Barbers Point Harbor, Oahu; Kahului Harbor, Maui; Hilo Harbor, Hawaii; and Kawaihae Harbor, Hawaii listed in its declaration of official intent dated October 17, 2017, pursuant to the extent and within the deadlines of Treasury Regulations Sections 1.142-4 and 1.150-2, and (2) to finance certain other capital improvements for facilities located at Honolulu Harbor, Oahu. Proceeds of the Series 2020A Bonds and the Series 2020B Bonds may also be used for other projects now or hereafter authorized by the Legislature of the State with respect to the harbor facilities at Honolulu Harbor.

Refunding Plan

A portion of the proceeds of the Series 2020 Bonds will be used to refund, on a current basis, $140,395,000 in aggregate principal amount of the State's Outstanding Harbor System Revenue Bonds, Series A of 2010 (Non-AMT) and $4,785,000 in aggregate principal amount of the State's Outstanding Harbor System Revenue Bonds, Series B of 2010 (AMT Bonds) (collectively, the "Refunded Bonds"). The Refunded Bonds are subject to redemption at any time, upon not less than 30 days' notice to the bondholders, at a redemption price equal to 100% of the principal amount thereof, plus accrued interest to the redemption date. It is anticipated that the Refunded Bonds will be redeemed on or about December 2, 2020.

The following table sets forth the schedule of the Series A of 2010 and Series B of 2010 Refunded Bonds:

Series	Maturity Date (July 1)	Par Amount ($)	Interest Rate (%)	CUSIP Number*	Redemption Price (%)
Series A of 2010	2021	3,005,000	4.250	41981TFK4	100
Series A of 2010	2021	2,000,000	5.000	41981TFZ1	100
Series A of 2010	2022	3,010,000	4.500	41981TFL2	100
Series A of 2010	2022	2,000,000	5.000	41981TFW8	100
Series A of 2010	2023	4,365,000	5.000	41981TFS7	100
Series A of 2010	2023	75,000	4.750	41981TFM0	100
Series A of 2010	2024	2,165,000	5.000	41981TFT5	100
Series A of 2010	2024	2,500,000	4.750	41981TFN8	100
Series A of 2010	2025	4,900,000	5.000	41981TFU2	100
Series A of 2010	2030	28,730,000	5.250	41981TFQ1	100
Series A of 2010	2035	21,210,000	5.500	41981TFP3	100
Series A of 2010	2035	16,500,000	5.750	41981TFX6	100
Series A of 2010	2040	49,935,000	5.625	41981TFR9	100
Series B of 2010	2021	4,785,000	5.500	41981TGL1	100

Sources and Application of Funds

The following table shows the estimated sources and application of moneys realized by the State upon the sale of the Series 2020 Bonds:

Sources:	Series 2020A Bonds	Series 2020B Bonds	Series 2020C Bonds	Total
Principal Amount	$147,520,000.00	$15,685,000.00	$103,345,000.00	$266,550,000.00
Original Issue Premium	28,940,481.15		22,748,269.60	51,688,750.75
Other Sources-1997 Certificate Harbor Principal Set Aside	2,392,500.00	110,513.19	2,391.986.81	4,895,000.00
Interest Set Aside	131,587.50	167,579.16	3,627,142.72	3,926,309.38
Debt Service Reserve Account Release		505,867.04	10,949,165.77	11,455,032.81
Total	$178,984,568.65	$16,468,959.39	$143,061,564.90	$338,515,092.94
Application:				
Deposit to Project Fund	$165,794,153.99	$9,208,941.51	$2,970.35	$175,006,065.85
Refunding the Refunded Bonds	4,895,387.29	6,340,545.35	137,237,804.67	148,473,737.31
Deposit to Harbor Debt Service Reserve Account	7,642,921.39	866,791.59	5,343,437.02	13,853,150.00
Costs of Issuance(1)	652,105.98	52,680.94	477,352.86	1,182,139.78
Total	$178,984,568.65	$16,468,959.39	$143,061,564,90	$338,515,092.94

(1) *Includes Underwriter's discount.*

THE SERIES 2020 BONDS

General

The Series 2020 Bonds will be issued in fully registered form without coupons, will be in the denomination of $5,000 or any integral multiple of $5,000 in excess thereof, will bear interest from their respective dates at the rates per annum set forth on the inside cover pages of this Official Statement, and will mature on the dates and in the principal amounts set forth on the inside cover pages of this Official Statement. The Series 2020 Bonds will be

* The above-referenced CUSIP numbers are furnished for convenience only. No representation is made by the State, the Department or the Paying Agent as to the accuracy or completeness of such CUSIP numbers.

dated as of the date of delivery thereof, and will bear interest payable on January 1 and July 1 of each year, commencing July 1, 2021. Interest on the Series 2020 Bonds will be computed on the basis of a 360-day year of twelve 30-day months.

The Series 2020 Bonds, when issued, will be registered in the name of Cede & Co., as nominee for The Depository Trust Company, New York, New York ("DTC"). DTC will act as securities depository for the Series 2020 Bonds. Individual purchases of the Series 2020 Bonds will be made in book-entry form only (the "Book-Entry System"), in the principal amount of $5,000 or integral multiples thereof. Purchasers will not receive certificates representing their interest in the Bonds. Principal of and interest on the Series 2020 Bonds will be paid by the Paying Agent for the Series 2020 Bonds (initially, U.S. Bank, National Association) to DTC, which will in turn remit such principal and interest to its participants (as hereinafter defined), for subsequent distribution to the Beneficial Owners (as hereinafter defined) of the Series 2020 Bonds. The Series 2020 Bonds may be transferred or exchanged in the manner described in such Series 2020 Bonds and as referenced in related proceedings of the State. See "APPENDIX D - BOOK-ENTRY ONLY SYSTEM."

Redemption

Optional Redemption. The Series 2020A Bonds and Series 2020C Bonds maturing on and after July 1, 2031 shall be subject to redemption at the option of the State prior to their stated maturity on and after July 1, 2030, as a whole or in part at any time, from such maturities as may be designated by the State, at a Redemption Price equal to 100% of the principal amount thereof plus accrued interest, if any, to the date fixed for redemption.

In addition, the Series 2020B Bonds are subject to redemption on any date prior to maturity at the option of the State, in whole or in part (and if in part on a pro rata basis), at a redemption price equal to the greater of:

(1) 100% of the principal amount of the Series 2020B Bonds to be redeemed; or

(2) the sum of the present value of the remaining scheduled payments of principal and interest to the maturity date of such Series 2020B Bonds to be redeemed, not including any portion of those payments of interest accrued and unpaid as of the date on which such Series 2020B Bonds are to be redeemed, discounted to the date on which such Series 2020B Bonds are to be redeemed on a semi-annual basis, assuming a 360-day year consisting of twelve 30-day months, at the Comparable Treasury Yield (defined below) plus 10 basis points,

plus, in each case, accrued interest on such Series 2020B Bonds to be redeemed to the redemption date.

"Calculation Agent" means a commercial bank or an investment banking institution of national standing that is a primary dealer of United States government securities in the United States and designated by the State (which may be the Underwriter for the Series 2020B Bonds).

"Comparable Treasury Issue" means the United State Treasury security selected by the Calculation Agent as having a maturity comparable to the remaining term to maturity of the Series 2020B Bonds being redeemed that would be utilized, at the time of selection and in accordance with customary financial practice, in pricing new issues of corporate debt securities of comparable maturity to the remaining term to maturity of the Series 2020B Bonds being redeemed.

"Comparable Treasury Price" means, with respect to any date on which a Series 2020B Bond or portion thereof is being redeemed, either (a) the average of five Reference Treasury Dealer quotations for the date fixed for redemption, after excluding the highest and lowest such quotations, and (b) if the Calculation Agent is unable to obtain five such quotations, the average of the quotations that are obtained. The quotations will be the average, as determined by the Calculation Agent, of the bid and asked prices for the Comparable Treasury Issue (expressed in each case as a percentage of principal amount) quoted in writing to the Calculation Agent, at 5:00 p.m. New York City time no later than the third business day nor earlier than the twentieth calendar day preceding the applicable date fixed for redemption.

“Comparable Treasury Yield” means the yield that represents the average yield to maturity for the period appearing in the most recently published statistical release designated “H.15(519) Selected Interest Rates” under the heading “Treasury Constant Maturities,” or any successor publication selected by the Calculation Agent that is published weekly by the Board of Governors of the Federal Reserve System and that establishes yields on actively traded United States Treasury securities adjusted to constant maturity, for the maturity corresponding to the remaining term to maturity of the Series 2020B Bonds being redeemed. The Comparable Treasury Yield will be determined no later than the third business day nor earlier than the twentieth calendar day preceding the applicable date fixed for redemption. If the H.15(519) statistical release sets forth a weekly average yield for United States Treasury securities that have a constant maturity that is the same as the remaining term to maturity of the Series 2020B Bonds being redeemed, then the Comparable Treasury Yield will be equal to such weekly average yield. In all other cases, the Comparable Treasury Yield will be calculated by interpolation on a straight-line basis between the weekly average yields on the United States Treasury securities that have a constant maturity (i) closest to and greater than the remaining term to maturity of the Series 2020B Bonds being redeemed; and (ii) closest to and less than the remaining term to maturity of the Series 2020B Bonds being redeemed. Any weekly average yields calculated by interpolation will be rounded to the nearest 1/100th of 1%, with any figure of 1/200th of 1% or above being rounded upward. If, and only if, weekly average yields for United States Treasury securities for the preceding week are not available in the H.15(519) statistical release or any successor publication, then the Comparable Treasury Yield will be the rate of interest per annum equal to the semiannual equivalent yield to maturity of the Comparable Treasury Issue (expressed as a percentage of its principal amount) equal to the Comparable Treasury Price (each as defined herein) as of the date fixed for redemption.

“Reference Treasury Dealer” means a primary dealer of United States Government securities in the United States (which may be the Underwriter for the Series 2020B Bonds) appointed by the State and reasonably acceptable to the Calculation Agent.

Notice of Redemption. The State will mail notice of redemption of the Series 2020 Bonds not less than 30 days prior to the redemption date by registered, certified or regular first-class mail, to the registered owners of any of the Series 2020 Bonds or portions of the Series 2020 Bonds which are to be redeemed, at their last addresses appearing upon the Bond Registry.

For so long as the Book-Entry System is in effect with respect to the Series 2020 Bonds, the Paying Agent will mail notice of redemption to DTC or its nominee or its successor. Any failure of DTC or its successor, or of a Direct DTC Participant or Indirect DTC Participant, to notify a Beneficial Owner of a Series 2020 Bond of any such redemption will not affect the sufficiency or the validity of the redemption of such Series 2020 Bond. See “APPENDIX D—BOOK-ENTRY SYSTEM” below.

Any notice of optional redemption of Series 2020 Bonds may state that such redemption shall be conditioned upon the receipt by the Paying Agent on or prior to the date fixed for redemption of moneys sufficient to pay in full the redemption price of the Series 2020 Bonds proposed to be redeemed. If the notice contains such condition, and moneys sufficient to pay in full the redemption price of the Series 2020 Bonds proposed to be redeemed shall not be received on or prior to the date fixed for redemption, such notice of redemption shall be of no force and effect, the Series 2020 Bonds called for redemption shall not be redeemed and notice shall be given, in the same manner as notice of redemption was given, that moneys sufficient to pay in full the redemption price of the Series 2020 Bonds proposed to be redeemed were not received and such redemption did not occur.

Effect of Redemption. If, on the redemption date, moneys for the redemption of all the Series 2020 Bonds or portions thereof of any maturity to be redeemed, together with interest to the redemption date, shall be held by the State or Paying Agent so as to be available therefor on said date and if notice of redemption shall have been given as provided in the Certificate, then, from and after the redemption date, interest on the Series 2020 Bonds or portions thereof of such maturity so called for redemption shall cease to accrue and become payable. If such moneys shall not be so available on the redemption date, such Series 2020 Bonds or portions thereof shall continue to bear interest until paid at the same rate as they would have borne had they not been called for redemption.

Selection for Redemption. If less than all of the Series 2020 Bonds of a series are called for redemption, the State will designate the maturities from which the Series 2020 Bonds of such series are to be redeemed. For so long as the Series 2020 Bonds are registered in book-entry form and DTC or a successor securities depository is the sole registered owner of such Series 2020 Bonds, if fewer than all of the Series 2020 Bonds of the same maturity and bearing the same interest rate are to be redeemed, the particular Series 2020 Bonds to be redeemed shall be selected: (i) by lot, in the case of the Series 2020A Bonds or the Series 2020C Bonds, and (ii) on a pro rata pass-through distribution of principal basis in accordance with DTC procedures, in the case of the Series 2020B Bonds; provided that, so long as the Series 2020B Bonds are held in book-entry form, the selection for redemption of the Series 2020B Bonds will be made in accordance with the operational arrangements of DTC then in effect, and if the DTC operational arrangements do not allow for redemption on a pro rata pass-through distribution of principal basis, all Series 2020B Bonds will be selected for redemption in accordance with DTC procedures by lot; provided further that any such redemption must be performed such that all Series 2020 Bonds remaining outstanding will be in authorized denominations. See “APPENDIX D - BOOK-ENTRY ONLY SYSTEM.”

In connection with any repayment of principal of the Series 2020B Bonds, the Paying Agent will direct DTC to make a pass-through distribution of principal to the owners of the Series 2020B Bonds. A form of Pro Rata Pass-Through Distribution of Principal Notice will be provided to the Paying Agent that includes a table of factors reflecting the relevant scheduled redemption payments, based on the current schedule of mandatory sinking fund payments, which is subject to change upon certain optional redemptions, and DTC's currently applicable procedures, which are subject to change.

For purposes of calculating pro rata pass-through distributions of principal, “pro rata” means, for any amount of principal or interest to be paid, the application of a fraction to such amounts where (a) the numerator is equal to the amount due to the owners of the Series 2020B Bonds on a payment date and (b) the denominator is equal to the total original par amount of such Series 2020B Bonds.

It is the State’s intent that redemption allocations made by DTC with respect to such Series 2020B Bonds be made on a pro rata pass-through distribution of principal basis as described above. However, neither the State nor the Underwriter can provide any assurance that DTC, DTC’s direct and indirect participants, or any other intermediary will allocate the redemption of such Series 2020B Bonds on such basis.

If the Series 2020 Bonds are not registered in book-entry form and if fewer than all of the Series 2020 Bonds of the same maturity and bearing the same interest rate are to be redeemed, the particular Series 2020B Bonds of such maturity and bearing such interest rate to be redeemed will be selected on a pro rata basis, and the particular Series 2020A Bonds and Series 2020C Bonds of such maturity and bearing such interest rate to be redeemed will be selected by lot, provided that any such redemption must be performed such that all Series 2020 Bonds remaining outstanding will be in authorized denominations.

Transfer or Exchange of the Bonds

Any Series 2020 Bond may, in accordance with its terms, be transferred upon the registry books required to be kept pursuant to the provisions of the Certificate, by the person in whose name it is registered, in person or by its duly authorized attorney, upon surrender of such Series 2020 Bond to the Paying Agent for cancellation, accompanied by delivery of a written instrument of transfer duly executed and in form satisfactory to the Paying Agent.

Whenever any Series 2020 Bond is surrendered for transfer, the State shall deliver, or cause to be delivered, at the principal office of the Paying Agent (or cause to be sent by registered mail to the holder thereof at its request, risk and expense), in exchange for the fully registered Series 2020 Bond surrendered, a new duly executed Series 2020 Bond, as appropriate, of the same series, interest rate and maturity for a like aggregate principal sum as the Series 2020 Bond surrendered.

Any Series 2020 Bond may be surrendered for exchange for a new fully registered Series 2020 Bond, as appropriate, of a like aggregate principal amount, series, interest rate and maturity and in authorized principal sums aggregating the principal sum or sums of the Series 2020 Bond or Series 2020 Bonds delivered in exchange.

All transfers or exchanges made pursuant to the Certificate will be made without expense to the Owner of such Series 2020 Bonds, except that the Paying Agent will require the payment by the Owner of the Series 2020

Bond requesting any such transfer of any tax or other governmental charges required to be paid with respect to such transfer.

No exchanges or transfers of a Series 2020 Bond are required to be made during the period beginning at the opening of business 15 days before the day of mailing of a notice of redemption and ending at the close of business on the day of such mailing.

Book-Entry Only System and Global Clearance Procedures

Information concerning DTC and the Book-Entry System contained in this Official Statement has been obtained from DTC and other sources that the State and the Underwriter believe to be reliable, and is not guaranteed as to accuracy or completeness by, and is not to be construed as a representation by, the Underwriter or the State. See "APPENDIX D - BOOK-ENTRY ONLY SYSTEM" for a full explanation of the Book-Entry Only System and a description of global clearance procedures.

SECURITY FOR THE BONDS

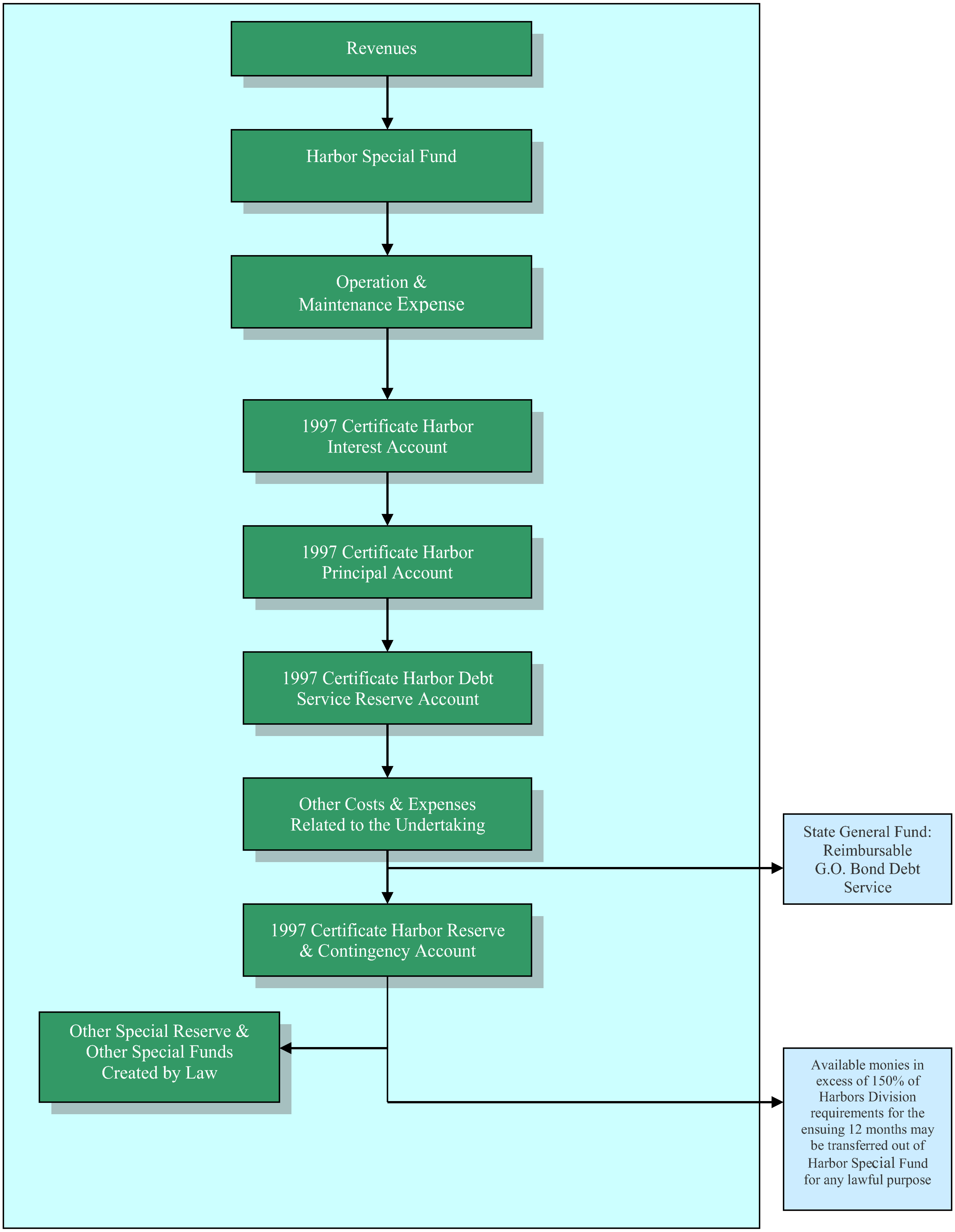
General

The Bonds, including the Series 2020 Bonds, are special limited obligations of the State, payable solely from and secured solely by the Harbor Special Fund, into which the State is obligated to deposit Revenues, as more fully set forth below and in the Certificate. Such deposits from Revenues shall be made after and subordinate to the payment of the expenses of operation and maintenance of the properties constituting the Harbor System. See "APPENDIX C – SUMMARY OF CERTAIN PROVISIONS OF THE CERTIFICATE."

The Bonds do not constitute a general or moral obligation of the State nor a charge upon the general fund of the State. The full faith and credit of neither the State nor any political subdivision thereof is pledged to the payment of or as security for the Bonds. Neither the real property nor the improvements comprising the Harbor System have been pledged or mortgaged to secure payment of the Bonds.

State law creates a special fund in the Treasury of the State, designated as the Harbor Special Fund. Pursuant to the Certificate, all Revenues are required to be deposited in the Harbor Special Fund. The Certificate provides that Revenues on deposit in the Harbor Special Fund shall be applied for the purposes and in the order of priority therein established. Table 1 provides a graphical representation of the flow of Revenues from one fund to another and the application of the Revenues. See "APPENDIX C – SUMMARY OF CERTAIN PROVISIONS OF THE CERTIFICATE - Allocation and Application of Revenues" for a further description of this flow of Revenues.

TABLE 1
FLOW AND APPLICATION OF REVENUES



The Department is obligated under State law to impose rates and charges sufficient to pay the costs of operation and maintenance, including reserves therefor, of the Harbor System, to pay when due the debt service, and to maintain the debt service reserves for and to satisfy the requirements of the Certificate, including the requirement that the deposit into the Harbor Special Fund be sufficient to pay the debt service on the Bonds and for certain other purposes. See "—Rates and Charges" below.

Pursuant to Section 266-19, HRS, the Director may transfer from the Harbor Special Fund all or any portion of available moneys on deposit in such fund determined by the Director to be in excess of 150% of the requirements for the Harbor Special Fund for the ensuing twelve months. The Director may transfer such excess moneys to the general fund of the State or to any other fund under the control of the Department, as permitted by Section 37-53, HRS. The operation and maintenance costs of the Harbor System and debt service requirements on the Bonds are requirements to be considered by the Director before making any such transfer. See "APPENDIX C – SUMMARY OF CERTAIN PROVISIONS OF THE CERTIFICATE – Allocation and Application of Revenues."

Under the doctrine of sovereign immunity, a state of the Union (including the State) cannot be sued by its own citizens. Under the United States Constitution, a state (including the State) cannot be sued by citizens of another state of the Union or by citizens or subjects of any foreign state. A state (including the State) may waive its immunity and consent to a suit against itself. The State has waived by statute its immunity from contractual claims. However, such waiver and consent may subsequently be withdrawn by the State. Such immunity from and constitutional prohibition against suits against a state extend to officers of a state acting in their official capacity. Therefore, there can be no assurance that in the event the State fails to make timely payment of principal of or interest on the Bonds, a right of action would lie against the State or officials of the State to enforce such payment.

The State has never defaulted in the payment of either principal of or interest on any indebtedness.

Rates and Charges

In the Certificate, the Department has covenanted to prescribe and collect reasonable rates, rents, fees or charges for the services, facilities and commodities of the Undertaking, and to revise such rates, rents, fees and charges from time to time whenever necessary so that the Undertaking shall be and always remain self-supporting. Pursuant to this covenant (referred to herein as the "Rate Covenant"), the Department agrees that such rates, rents, fees or charges will:

(a) be such as will produce Revenues at least sufficient (i) to pay the costs of operation, maintenance and repair of the Harbor System (including reserves therefor) and the expenses of the Department in connection therewith; (ii) to pay into the Harbor Special Fund for credit to each account therein the amounts required by the Certificate; (iii) to reimburse the general fund of the State for all bond requirements for reimbursable general obligation Bonds issued for the Harbor System; and (iv) to carry out the provisions of the Certificate; and

(b) at all times and in any and all events, yield Aggregate Net Revenues (as defined in the Certificate) for the next twelve-month period which, (i) together with funds on deposit in the 1997 Harbor Reserve and Contingency Account, shall be at least equal to 1.25 times the Aggregate Certificate Bond Service on all Bonds for such twelve months, and (ii) without consideration of other funds, shall be at least equal to 1.00 times the Aggregate Certificate Bond Service for such twelve months.

Series 2020 Harbor Debt Service Reserve Subaccount

In order to provide a reserve for the payment of the principal of, premium, if any, and interest on the Bonds, the Certificate creates a 1997 Certificate Harbor Debt Service Reserve Account in the Harbor Special Fund and within the 1997 Certificate Harbor Debt Service Reserve Account, the Series 2013 Debt Service Reserve Subaccount, which secures only the Department's Series 2013 Bonds, and the Series 2020 Debt Service Reserve Subaccount, which will secure only the Series 2020 Bonds. The Department's Series 2016 Bonds are not secured by the 1997 Certificate Harbor Debt Service Reserve Account or the Debt Service Reserve Subaccounts contained therein.

The Certificate requires that moneys credited to the Series 2020 Debt Service Reserve Subaccount of the 1997 Certificate Harbor Debt Service Reserve Account be maintained in the amount necessary to satisfy the "Reserve Requirement," which, for purposes of such Subaccount, is equal to fifty percent (50%) of the maximum Bond Service for the Series 2020 Bonds for any future Fiscal Year. See "APPENDIX C – SUMMARY OF CERTAIN PROVISIONS OF THE CERTIFICATE – 1997 Certificate Harbor Debt Service Reserve Account."

Additional Indebtedness

The Certificate permits the issuance of Additional Bonds payable from and secured by the Harbor Special Fund on a parity with the Series 2020 Bonds for the purpose of paying or reimbursing the cost of acquiring or constructing properties that constitute part of the Undertaking or adding to, reconstructing, improving, replacing or expanding the Harbor System so long as:

(a) no default in the payment of any Bond exists, no deficiency exists in the Harbor Special Fund, and the Rate Covenant is satisfied and there does not exist an "Event of Default" (as described in APPENDIX C – "SUMMARY OF CERTAIN PROVISIONS OF THE CERTIFICATE – Events of Default") or a condition which upon the passage of time would constitute such an "Event of Default:" and

(b) (i) the Aggregate Net Revenues as derived from the most recent audited financial statements or for any consecutive twelve calendar month period during the preceding eighteen calendar month period, are at least equal to 1.25 times the Aggregate Certificate Bond Service on all Bonds for any future fiscal year, or

(ii) (1) the Aggregate Net Revenues as derived from the most recent audited financial statements or for any consecutive twelve calendar month period during the preceding eighteen calendar month period, as adjusted in Accordance with the Certificate, are at least equal to 1.00 times the Aggregate Certificate Bond Service on all Bonds for any future fiscal year, and (2) the sum of such Aggregate Net Revenues and the Anticipated Net Revenue Increase, if any, is not less than 1.25 times such Aggregate Certificate Bond Service for any future fiscal year. See "APPENDIX C – SUMMARY OF CERTAIN PROVISIONS OF THE CERTIFICATE - Additional Bonds and Refunding Bonds."

If, prior to the delivery of Additional Bonds, the Department has imposed increases in its schedule of rentals, rates, fees and charges, which increases are or shall be in effect upon the delivery of such Additional Bonds, the Harbor Consultant may adjust its estimates to reflect such increases for the purposes of making the determination required in clause (b)(ii) above.

The Department anticipates satisfying the Additional Bonds test in (b)(i) above in connection with the issuance of the Series 2020 Bonds. In addition to the Series 2020 Bonds the Department expects to issue Additional Bonds to finance a portion of future Capital Improvements Programs. See "THE HARBOR SYSTEM—Capital Improvements Program."

The Certificate also permits the issuance of Refunding Bonds payable from and secured by the Harbor Special Fund on a parity with the Series 2020 Bonds to refund Bonds if: (a) no default exists in the payment of any Bond, no deficiencies exist in the Harbor Special Fund, the Rate Covenant is satisfied, and there does not exist an "Event of Default" (as described in "APPENDIX C – SUMMARY OF CERTAIN PROVISIONS OF THE CERTIFICATE – Events of Default") or a condition which upon the passage of time would constitute such an "Event of Default," (b) the aggregate Bond Service for the Refunding Bonds after such refunding shall be less than the aggregate Bond Service for the refunded Bonds had such refunding not occurred and (c) upon delivery of such Refunding Bonds there shall be on credit to the Debt Service Reserve Subaccount for such Refunding bonds, if any, within the 1997 Certificate Harbor Debt Service Reserve Account an amount equal to the Reserve Requirement for such Refunding Bonds. See "APPENDIX C – SUMMARY OF CERTAIN PROVISIONS OF THE CERTIFICATE – Additional Bonds and Refunding Bonds."

Nothing in the Certificate prohibits the Department from incurring additional indebtedness with a lien on Net Revenues which is subordinate to that of the Bonds.

Amendments to Certificate

The Certificate provides that certain amendments to the provisions of the Certificate may be made without the consent of the Holders of the Bonds, but other amendments require the consent of the Holders of a majority in principal amount of Outstanding Bonds or, in certain cases, the consent of the Holders of all Outstanding Bonds. See "APPENDIX C – SUMMARY OF CERTAIN PROVISIONS OF THE CERTIFICATE – Execution of Supplemental Certificates With Consent of Bondholders" for a discussion of amendments requiring the consent of Holders of Bonds.

As a condition to the purchase of any Series 2020 Bonds hereunder, each purchaser of a Series 2020 Bond, by acceptance thereof, will be required to consent to all of the proposed amendments and waive any revocation rights relating to such consent. Accordingly, all purchasers of the Series 2020 Bonds, by virtue of such purchases, will be deemed to have consented to such amendments without right of revocation. Further, the Holders of the Department's Outstanding Series 2013 Bonds and Series 2016 Bonds have already consented to the amendments contained in the Tenth Supplemental Certificate requiring unanimous consent and, as such, all of the amendments contained in the Tenth Supplemental Certificate will take effect immediately upon the issuance of the Series 2020 Bonds. Such amendments include, but are not limited to:

(a) *Definition of Bond Service*. Clause (E) of the definition of "Bond Service" in Section 1.01 of the Certificate is hereby amended to read as follows:

(E) If any Bonds feature an option, on the part of the Bondowners or an obligation under the terms of such Bonds, to tender all or a portion of such Bonds to the Department, or other fiduciary or agent and require that such Bonds or portion thereof be purchased if properly presented, and if it shall constitute an event of default if such Bonds shall not be purchased upon said presentation, then for purposes of determining the amounts of principal and interest due in any Fiscal Year on such Bonds, the options or obligations of the Owners of such Bonds to tender the same for purchase or payment prior to their stated maturity or maturities shall be treated as a principal maturity occurring on the first date on which Owners of such Bonds may or are required to tender such Bonds except that any such option or obligation to tender Bonds shall be ignored and not treated as a principal maturity, if (1) such Bonds are rated in one of the three highest long-term Rating Categories by two Rating Agencies (without taking into account any plus or minus designation or numerical modification used by the Rating Agency to indicate relative standing within a major rating category) or such Bonds are rated in the highest short-term note or commercial paper Rating Categories by two Rating Agencies (without taking into account any plus or minus designation or numerical modification used by the Rating Agency to indicate relative standing within a major rating category), and (2) funds for the purchase price of such Bonds are to be provided by a Support Facility and the obligation of the Department with respect to the provider of such Support Facility, other than its obligations on such Bonds (including any increased interest rate thereon), shall be subordinated to the obligations of the Department on the Bonds; and

(b) *Definition of Commercial Paper*. A new defined term for "Commercial Paper" shall be added to Section 1.01 of the Certificate in the correct alphabetical position as follows:

"Commercial Paper" means short-term taxable or tax-exempt promissory notes sold into the commercial paper market and maturing within 270 days of the date of issuance thereof. For the avoidance of doubt, Commercial Paper shall be treated as Balloon Bonds for purposes of calculating Bond Service.

(c) *Definition of Credit Agreement*. A new defined term for "Credit Agreement" shall be added to Section 1.01 of the Certificate in the correct alphabetical position as follows:

"Credit Agreement" means a credit agreement, revolving credit agreement or other similar debt agreement pursuant to which the Department borrows funds. For the avoidance of doubt, a Credit Agreement may be treated as Balloon Bonds or Variable Rate Bonds, if and as applicable, for purposes of calculating Bond Service.

(d) *Definition of Dealer*. A new defined term for "Dealer" shall be added to Section 1.01 of the Certificate in the correct alphabetical position as follows:

"Dealer" means, with respect to an issue of Commercial Paper, the Dealer appointed by the Department and serving as such under a Dealer Agreement or similar agreement, including any successors or assigns.

(e) *Definition of Dealer Agreement*. A new defined term for "Dealer Agreement" shall be added to Section 1.01 of the Certificate in the correct alphabetical position as follows:

"Dealer Agreement" means, with respect to an issue of Commercial Paper, a Commercial Paper Dealer Agreement or similar agreement.

(f) *Definition of Debt Service Reserve Subaccount.* A new defined term for "Debt Service Reserve Subaccount" shall be added to Section 1.01 of the Certificate in the correct alphabetical position as follows:

"Debt Service Reserve Subaccount" means any one or more subaccounts of the Department established pursuant to a Supplemental Certificate and held under the 1997 Certificate Harbor Debt Service Reserve Account.

(g) *References to Debt Service Reserve Subaccount*. References to the 1997 Certificate Harbor Debt Service Reserve Account throughout the Certificate shall be deemed to refer, by such reference, to the Debt Service Reserve Subaccounts held thereunder, if and as applicable. Revenues and, unless otherwise specified in a Supplemental Certificate, other amounts credited to the 1997 Certificate Harbor Debt Service Reserve Account shall be applied for the proportionate benefit of the Debt Service Reserve Subaccounts held thereunder.

(h) *Definition of Federal Securities*. Clause (iii) of the definition of "Federal Securities" in Section 1.01 of the Certificate is hereby amended to read as follows:

(iii) any obligations of any state or political subdivision of a state (collectively, "Municipal Bonds") which Municipal Bonds are either (A) rated by two or more Rating Agencies at a rating equivalent to or higher than the rating assigned by such Rating Agencies to the United States of America (whether such rating is based upon the credit of the issuer, an insurance policy, a letter of credit or otherwise) or (B) fully secured as to principal and interest by an irrevocable pledge of moneys or direct and general obligations of, or obligations guaranteed by, the United States of America, which moneys or obligations are segregated in trust and pledged for the benefit of the holder of the Municipal Bonds, and which Municipal Bonds are rated by two or more Rating Agencies at a rating equivalent to or higher than the rating assigned by such Rating Agencies to the United States of America and provided, however, that such Municipal Bonds are accompanied by (a) an opinion of Bond Counsel to the effect that such Municipal Bonds are not subject to redemption prior to the date the proceeds of such Municipal Bonds will be required for the purposes of the investment being made therein, and (b) a report of an Independent Public Accountant verifying that the moneys and obligations so segregated are sufficient to pay the principal of, premium, if any, and interest on the Municipal Bonds; and

(i) *Definition of Interest Rate Swap Agreement*. The definition of "Interest Rate Swap Agreement" in Section 1.01 of the Certificate is hereby amended to read as follows:

"Interest Rate Swap Agreement" means an interest rate swap agreement relating to a Series of Bonds or portion thereof, (a) the term of which is not greater than the term of the Bonds which such interest rate swap agreement relates, (b) in which the counterparty with which the Department may contract is limited to (i) entities the debt securities of which are rated in one of the three highest long-term debt rating categories by two Rating Agencies (without taking into account any plus or minus designation or numerical modification used by the Rating Agency to indicate relative standing within a major rating category), or (ii) entities the obligations of which under the interest rate swap agreement are either guaranteed or insured by an entity the debt securities or insurance policies of which are so rated, or (iii) entities the debt securities of which are rated in the fourth highest long-term debt rating categories by two Rating Agencies (without taking into account any plus or minus designation or numerical modification used by the Rating Agency to indicate relative standing within a major rating category) or whose obligations are guaranteed or insured by an entity so rated and the obligations of which under the interest rate swap agreement are continuously and fully secured by Investment Securities (other than those described in clauses (iv) through (xviii) of the definition thereof), which shall have a market value determined, by the party designated in such agreement, at least monthly (exclusive of accrued interest) at least equal to the termination value, if any, that would be payable by such counterparty under the interest rate swap agreement and which shall be deposited with a custodian acceptable to the Department, and (c) the payment of regularly scheduled swap payments are on a parity with the Bonds, however any termination or cancellation payments are subordinated to the Bonds.

(j) *Definition of Investment Securities*. Clause (iii), (iv), (vi), (viii) and (ix) of the definition of "Investment Securities" in Section 1.01 of the Certificate are hereby amended to read as follows:

(iii) direct and general obligations of any state of the United States of America, to the payment of the principal of and interest on which the full faith and credit of such state is pledged, provided that at the time of their purchase under this Certificate such obligations are rated in the three highest major rating categories by a Rating Agency (without taking into account any plus or minus designation or numerical modification used by the Rating Agency to indicate relative standing within a major rating category);

(iv) repurchase agreements with banks which are members of the Federal Deposit Insurance Corporation and rated in the three highest major rating categories by a Rating Agency (without taking into account any plus or minus designation or numerical modification used by the Rating Agency to indicate relative standing within a major rating category) or government bond dealers recognized as primary dealers by the Federal Reserve Bank of New York, secured by securities which are obligations described in item (i) or (ii) of this definition of Investment Securities, provided that each such repurchase agreement (a) is in commercially reasonable form, as determined in the sole judgment of the Department, and is for a period not to exceed thirty (30) days, and (b) results in transfer to the Department of legal title to, or the grant to the Paying Agent of a prior perfected security interest in, identified securities referred to in item (i) or (ii) in this definition of Investment Securities which are free and clear of any claims by third parties and are segregated in a custodial or trust account held by a third party (other than the repurchase) as the agent solely of, or in trust solely for the benefit of, the Department; provided that such securities acquired pursuant to such repurchase agreements shall be valued weekly at the lower of the then current market value of such securities or the repurchase price thereof set forth in the applicable repurchase agreement, and if the value of such securities drops below 103% of the value of the cash transferred by the Department, then additional cash and/or acceptable securities must be transferred to the Department from the applicable bank or government bond dealer;

(vi) Bankers' acceptances with a maximum term of one year drawn on and accepted by commercial banks having a total net worth of at least $50,000,000 (or, in the case of a commercial bank not organized under the laws of the United States of America or any state thereof (in which event the bankers' acceptances shall be dollar-denominated), a total net worth of at least $1,000,000,000) and having an unsecured, uninsured and unguaranteed obligation rating in the two highest short- or three highest long-term major rating categories by two Rating Agencies (without taking into account any plus or minus designation or numerical modification used by the Rating Agency to indicate relative standing within a major rating category);

(viii) Corporate bonds rated in one of the three highest rating categories by a Rating Agency (without taking into account any plus or minus designation or numerical modification used by the Rating Agency to indicate relative standing within a major rating category);

(ix) investment agreements rated no lower than the third highest rating category given by a Rating Agency and if not so rated then investment agreements with companies or banks whose senior debt obligations are rated no lower than the third highest rating category given by a Rating Agency (without taking into account any plus or minus designation or numerical modification used by the Rating Agency to indicate relative standing with a major rating category) at the time of the execution and delivery of such agreement;

(k) *Definition of Operation and Maintenance Expenses*. The definition of "Operation and Maintenance Expenses" in Section 1.01 of the Certificate is hereby amended to read as follows:

"Operation and Maintenance Expenses" means the expenses of operation and maintenance of the properties constituting the Undertaking and the expenses of operation of the Department, including general administrative overhead, in connection with those properties, but excluding any (i) arbitrage earnings which are required to be paid to the United States Government pursuant to Section 148 of the Code, (ii) depreciation and amortization expense and any other non-cash charges, (iii) surcharges imposed by the State for central services expenses, (iv) Qualified

Litigation Costs and (v) any amounts statutorily required to be remitted to The Office of Hawaiian Affairs in connection with the use of Ceded Lands by third-party users.

(l) *Definition of Paying Agents*. The definition of "Paying Agents" in Section 1.01 of the Certificate is hereby amended to read as follows:

"Paying Agents" means, for the 2013 Bonds, 2016 Bonds and 2020 Bonds, U.S. Bank National Association, and, for any Additional Bonds, the paying agent or agents therefor appointed in the Supplemental Certificate providing for the issuance of such Bonds.

(m) *Definition of Rating Agency*. The definition of "Rating Agency" in Section 1.01 of the Certificate is hereby amended to read as follows:

"Rating Agency" means Fitch Ratings, Inc., Moody's Investors Service or S&P Global Ratings, and in each case their successors and assigns; provided, however, that any reference to a Rating Agency in this Certificate (other than in this Section under the definitions of "Federal Securities" and "Investment Securities") shall only be effective while such Rating Agency is providing a rating on Outstanding Bonds.

(n) *Definition of Reserve Requirement*. The definition of "Reserve Requirement" contained in Section 1.01 of the Certificate is hereby amended to read as follows:

"Reserve Requirement" means an amount, as of any date of determination, equal to: (i) with respect to the 2013 Bonds for credit to the Series 2013 Debt Service Reserve Subaccount, an amount, as of any date of determination, equal to fifty percent (50%) of the maximum Bond Service for the 2013 Bonds for any Fiscal Year, beginning with the Fiscal Year in which the date of determination occurs and ending with the Fiscal Year after which no Series 2013 Bonds are Outstanding; (ii) with respect to the Series 2016 Bonds, $0; (iii) with respect to the 2020 Bonds for credit to the Series 2020 Debt Service Reserve Subaccount, an amount, as of any date of determination, equal to fifty percent (50%) of the maximum Bond Service for the 2020 Bonds for any Fiscal Year, beginning with the Fiscal Year in which the date of determination occurs and ending with the Fiscal Year after which no Series 2020 Bonds are Outstanding; and (iv) with respect to any Additional Bonds, the amount provided for in the Supplemental Certificate authorizing the same.

(o) *Definition of Revenues*. The word "and" shall be struck from subclause (vi) and the following sub-clauses (viii) and (ix) shall be added to the end of the definition of "Revenues" in Section 1.01 of the Certificate:

(viii) unrealized gains and losses on investments; and

(ix) any proceeds paid to Harbor System by third-party users of Ceded Lands which the Harbor System is statutorily obligated to remit to The Office of Hawaiian Affairs.

(p) *Definition of Support Facility*. The definition of "Support Facility" in Section 1.01 of the Certificate is hereby amended to read as follows:

"Support Facility" means any instrument entered into or obtained in connection with a Series of Bonds or Commercial Paper such as a letter of credit, a committed line of credit, insurance policy, surety bond or standby bond purchase agreement, or any combination of the foregoing, and issued by a bank or banks, other financial institution or institutions, or any combination of the foregoing, which Support Facility provides for the payment of (i) the purchase price equal to the principal of and accrued interest on Bonds or Commercial Paper delivered to the Remarketing Agent, Dealer or any depository, tender agent or other party pursuant to a Remarketing Agreement, Dealer Agreement or Supplemental Certificate and discount, if any, incurred in remarketing such Bonds or Commercial Paper, and/or, (ii) principal of and interest on all Bonds or Commercial Paper becoming due and payable during the term thereof.

(q) *Section 3.03*. A new third paragraph shall be added to Section 3.03 of the Certificate as follows:

If at the time of mailing of notice of an optional redemption there shall not have been deposited with the Paying Agent(s) moneys sufficient to redeem all the Bonds called for redemption, such notice may state that it is conditional, that is, subject to the deposit of the redemption moneys with the Paying Agent(s) on or prior to the redemption date, and such notice shall be of no effect unless such moneys are so deposited on or prior to the redemption date. If such redemption is not effectuated, the Paying Agent(s) shall, at the expense of the Department, within five days thereafter, give notice in the manner in which the notice of redemption was given that such moneys were not so received and shall rescind the notice of redemption.

(r) *Section 4.02*. The final paragraph of Section 4.02 of the Certificate is hereby amended to read as follows:

Nothing in this Certificate shall prohibit or prevent, or be deemed or construed to prohibit or prevent, the Department from issuing Variable Rate Bonds, Balloon Bonds, Capital Appreciation Bonds, Paired Obligations, Commercial Paper or Credit Agreements or entering into an Interest Rate Swap Agreement. The Supplemental Certificate providing for the issuance of Variable Rate Bonds, Balloon Bonds, Capital Appreciation Bonds, Paired Obligations, Commercial Paper or Credit Agreements may provide for, without limitation, the following; Support Facilities or alternative Support Facilities and Support Agreements in connection therewith; Remarketing Agreements or Dealer Agreements and the appointment of Remarketing Agents or Dealers; the appointment of tender agents to accept mandatory or optional tenders of Variable Rate Bonds; the payment, redetermination and accrual over specified periods of interest or Accreted Value; the establishment, use, composition, adjustment and change of interest indices or modes or the establishment and use of alternative interest indices or modes or the establishment of a fixed interest rate or rates; the establishment of special funds and accounts in connection with the issuance of Variable Rate Bonds, Capital Appreciation Bonds, Paired Obligations, Commercial Paper or Credit Agreements; special redemption or purchase provisions for such Variable Rate Bonds, Commercial Paper or Credit Agreements and notice provisions in connection with the purchase, redemption, delivery or tender of such Variable Rate Bonds, Commercial Paper or Credit Agreements; and any other terms and provisions not in conflict with this Certificate.

(s) *Section 4.03*. Section 4.03(a) and (d) of the Certificate are hereby amended to read as follows:

a. Such Bonds shall be issued only for the purpose of the payment or reimbursement of the cost of the acquisition or construction of properties to constitute part of the Undertaking or the making of additions to, expansions of, improvements of, renewals of, replacements of, or reconstructions of, the Undertaking or of properties which shall constitute part of the Undertaking (including, without limitation, any Qualified Litigation Costs) or for such other purpose as may be authorized by Part III of Chapter 39, Hawaii Revised Statutes from time to time;

d. The Aggregate Net Revenues as derived from the most recent audited financial statements or for any consecutive twelve calendar month period during the eighteen calendar month period preceding the date of adoption by the Department of the Supplemental Certificate authorizing the issuance of such Additional Bonds (the "Designated Period") are at least equal to (i) one and twenty-five hundredths (1.25) times the Aggregate Certificate Bond Service for any future Fiscal Year on all Bonds, 1990 Certificate Harbor Revenue Bonds and Capital Improvement Bonds to be Outstanding after the issuance of such Additional Bonds, or (ii) one (1.00) times the Aggregate Certificate Bond Service for any future Fiscal Year on all Bonds, 1990 Certificate Harbor Revenue Bonds and Capital Improvement Bonds to be Outstanding after the issuance of such Additional Bonds and the sum of (1) the Aggregate Net Revenues for the Designated Period, as adjusted as hereinafter required, and (2) the Anticipated Net Revenue Increase (hereinafter defined), if any, is at least equal to one and twenty-five hundredths (1.25) times the Aggregate Certificate Bond Service for any future Fiscal Year on all Bonds, 1990 Certificate Harbor Revenue Bonds and Capital Improvement Bonds to be Outstanding after the issuance of such Additional Bonds; and

(t) *Section 5.05*. Section 5.05 of the Certificate is hereby amended to read as follows:

There is hereby created in the 1997 Certificate Harbor Revenue Special Fund a "1997 Certificate Harbor Debt Service Reserve Account," and within such Account, the Series 2013 Debt Service Reserve Subaccount, the

Series 2020 Debt Service Reserve Subaccount, and such other Debt Service Reserve Subaccounts as may hereafter be established by a Supplemental Certificate, which in each case, shall be maintained in an amount equal to the applicable Reserve Requirement and shall be disbursed solely for the purpose of paying principal of and interest on the applicable Bonds secured thereby (and shall not be available to pay the interest on or principal of any other Bonds) for the payment of which there shall be insufficient money in the 1997 Certificate Harbor Interest Account or 1997 Certificate Harbor Principal Account. The applicable Reserve Requirement shall be determined at the time of issuance of a Series of Bonds, July 1 of each year, at the time any Variable Rate Bonds of a Series case to be Variable Rate Bonds, and such other time or times as the Department shall determine and shall be funded upon the issuance of each Series of Bonds.

Subject to the remaining provisions of this paragraph, (a) if at any time during a Fiscal Year the moneys on credit to any Debt Service Reserve Subaccount are less than the applicable Reserve Requirement (including any deficiency in a Support Facility used to fund all or a portion of the Reserve Requirement), the amount of the deficiency shall be restored from the first available Net Revenues (on a proportionate basis across all deficient Debt Service Reserve Subaccounts); (b) if at the end of any Fiscal Year, the moneys credited to any Debt Service Reserve Subaccount are less than the applicable Reserve Requirement, the Department shall (after making the deposits and credits required by Sections 5.01 through 5.04 hereof) credit an amount to such Debt Service Reserve Subaccount (on a proportionate basis across all deficient Debt Service Reserve Subaccounts) from Net Revenues on deposit in the 1997 Certificate Harbor Revenue Special Fund so that there shall then be credited to such Debt Service Reserve Subaccount an amount equal to the applicable Reserve Requirement; (c) if the deficiency in any Debt Service Reserve Subaccount is due to the application of moneys credited thereto to pay principal of or interest on the related Series of Bonds, then in each month, commencing with the month which follows the month in which such application is made from such Debt Service Reserve Subaccount, the Department shall (after making the deposits and credit required by Sections 5.01 through 5.04 hereof) credit from the Net Revenues on deposit in the 1997 Certificate Harbor Revenue Special Fund to such Debt Service Reserve Subaccount an amount which, if the same amount were so credited in each month thereafter until the day which is 60 months from the making of the first of such credits, there shall be credited to such subaccount on such day an amount not less than the applicable Reserve Requirement; and (d) if at any time and for so long as the moneys credited to a Debt Service Reserve Subaccount are at least equal to the applicable Reserve Requirement, no further credits shall be made to the account, and any amounts in excess of the applicable Reserve Requirement may be retained in the 1997 Certificate Harbor Revenue Special Fund for use and application as are all other moneys on deposit therein.

When a Series of Bonds is refunded in whole or in part or is otherwise paid so that all of the Bonds of such Series are no longer Outstanding, moneys credited to the Debt Service Reserve Subaccount related to such Series of Bonds may be withdrawn from the 1997 Certificate Harbor Revenue Special Fund to pay or provide for the payment of such Bonds or refunded Bonds, as the case may be, or may be transferred and applied to any reserve fund or account established for the Refunding Bonds issued to refund such refunded Bonds; provided that immediately after such withdrawal or transfer there shall be on credit to each Debt Service Reserve Subaccount within the 1997 Certificate Harbor Debt Service Reserve Account an amount equal to the applicable Reserve Requirement.

The Department may, if and as authorized pursuant to a Supplemental Certificate, use a surety bond or an insurance policy payable to the Department for the benefit of the Holders of a Series of Additional Bonds to satisfy the Reserve Requirement applicable thereto.

In lieu of the credit of moneys to the Series 2013 Debt Service Reserve Subaccount, there shall be credited to such Subaccount the municipal bond debt service reserve fund insurance policy 212945R issued on November 20, 2010 as amended and by endorsement dated August 2, 2013 issued by Assured Guaranty Municipal Corp. (the "2013 Surety"). If a disbursement is made pursuant to the 2013 Surety, the Department shall be obligated either (i) to reinstate the maximum limits of the 2013 Surety, or (ii) to credit to the Series 2013 Debt Service Reserve Subaccount funds in the amount necessary, when added to the remaining balance of the 2013 Surety, to increase the total amount available thereunder to the applicable Reserve Requirement; provided, however, that a failure to immediately restore such Reserve Requirement shall not constitute an Event of Default if the Reserve Requirement is restored within the time period permitted by Section 11.01(c) hereof. Notwithstanding the provisions of said Section 11.01(c), the Department shall not permit any surety bond, insurance policy, or letter of credit which has been established in lieu of a deposit into a Debt Service Reserve Subaccount, including the 2013 Surety, to terminate or expire prior to depositing to such Debt Service Reserve Subaccount the amount satisfied previously by such surety bond, insurance policy, or letter of credit.

(u) *Section 6.07*. Section 6.07 of the Certificate is hereby struck in its entirety.

(v) *Section 6.08*. Section 6.08 of the Certificate is hereby struck in its entirety and shall be designated RESERVED.

(w) *Section 9.03*. Section 9.03(a) of the Certificate is hereby amended to read as follows:

In determining whether the Holders of the requisite aggregate principal amount of Bonds have concurred in any demand, request, direction, consent, vote or waiver under this Certificate, any Bonds which are owned by or on behalf of or for the account of the State and, except for the purposes of the provisos to the first sentence of Section 10.02 hereof, any Bonds which are deemed no longer Outstanding hereunder as provided in Section 12.01 hereof, shall be disregarded and not included for the purpose of any such determination, and such Bonds shall not be entitled to vote upon, consent to or concur in any action provided in this Certificate. The Department or the Director of Finance may require each Holder of a Bond or Bonds before his demand, request, direction, consent, vote or waiver shall be deemed effective, to reveal if the Bonds as to which such demand, request, direction, consent, vote or waiver is made, granted, cast or given are disqualified as provided in this Section.

(x) Section 11.01. Section 11.01(h) of the Certificate is hereby struck in its entirety.

SOURCES OF REVENUES

General

State law and the Certificate require the State to operate the Harbor System on a self-supporting basis. The Certificate requires the Department to prescribe and collect rates, rentals, fees and charges for the use of and services provided by the Harbor System to generate Revenues which will be sufficient to pay the principal of and the interest incurred for all Bonds outstanding and to pay the costs of operation, maintenance and repair of the Harbor System, to reimburse the general fund of the State for all reimbursable general obligation Bonds issued by the State for the Harbor System and to satisfy other provisions of the Certificate. The Harbor System derives its Revenues from three major sources: services revenues, rentals income and other operating revenues. See "SECURITY FOR THE BONDS – Rates and Charges." The services revenues, rentals income and other operating revenues described below are obtained from the annual audited financial statements of the Harbor System. The most recent fiscal year for which such audited financial information is available is the year ending June 30, 2019. All financial information provided for the year ending June 30, 2020 is unaudited. KKDLY LLC is currently conducting its audit of the financial statements of the Harbors Division for the fiscal year ended June 30, 2020. The results of the audit may become available prior to delivery of the Series 2020 Bonds, and if so completed, the report will be distributed to purchasers.

Harbor Tariffs

The Department establishes tariff schedules for wharfage charges, dockage fees, demurrage, port entry fees, mooring charges and other tariffs that comprise services revenues pursuant to an administrative rule-making process in accordance with Chapter 91, HRS. The Department must also comply with the provisions of Chapter 201M, Hawaii Administrative Rules, which requires the review of the State's Small Business Regulatory Review Board on any proposed rules to determine their impact on small businesses. Tariffs assessed to "overseas" voyages and their related cargoes generally are greater than those assessed to "inter-island" voyages and their related cargoes. An overseas voyage is defined as a voyage between a Hawaii port and a foreign port or a port located on the United States mainland. An inter-island voyage is defined as a voyage between the six major islands within the State. Tariff rates were last increased in July 2019.

In 2005, the Hawaii Harbor Users Group ("HHUG"), a non-profit maritime transportation industry group comprised of key harbor users (including Matson Navigation Company; Horizon Lines, LLC; Young Brothers/Hawaiian Tug & Barge; Norwegian Cruise Line; Sause Bros., Inc. and others), was formed to help the State identify and prioritize harbor improvement needs. HHUG worked in partnership with the State to develop the Harbors Modernization Plan (the "HMP"), a comprehensive, system-wide strategy to modernize and expand the Harbor System to meet projected needs (as more fully discussed under "THE HARBOR SYSTEM-Capital Improvements Program" herein). A State policy team comprised of key State officials, including the Directors and Deputy Directors of the Departments of Transportation, Budget and Finance, and Business, Economic Development and Tourism, and the Executive Director of the Aloha Tower Development Authority, the State Economist, Tourism Liaison and Consumer Advocate, was convened to undertake a comprehensive review of the Harbors Division's tariff rates with HHUG for possible adjustments in order to provide the necessary revenues to support the HMP as well as sustain ongoing harbor operations.

During 2007, the HHUG supported legislation to modernize and develop critically needed harbor structure improvements to increase cargo handling capacity resulting in Act 200, SLH ("SLH") 2008. The Act recognized the need to fund costly wharves and cargo handling terminals and created partnerships and identified seventeen priority projects. During 2009, new tariff rate structures were proposed, and beginning on July 1, 2010 rates were increased annually to fund the harbor structure improvements.

During 2010, designs and plans were initiated to make improvements for tenants and operators to relocate to another pier within Honolulu Harbor and also to remove buildings and clear the area for the Kapalama Container terminal. By 2014, tenants were relocated, new leases executed, and construction to remove buildings at the Kapalama Container Terminal site began. The Department proceeded with the construction of Phase I of Kapalama Container Terminal, Oahu, and anticipates construction of Phase I will be substantially completed by December 2020. Another Act 200 project, Pier 4 Hilo Harbor was completed during December 2018. The construction contract for the Phase II of Kapalama Container Terminal Phase II project, Oahu, was awarded in mid-October 2020, with a completion date estimated to occur in the winter of 2023. Other Act 200 projects are progressing at Kalaeloa Barbers Point Harbor, Oahu; Hilo Harbor and Kahului Harbor.

Amendments to the tariff rates under Chapter 19-44, Hawaii Administrative Rules (Pertaining to Services and Procedures, Charges, Tolls and Fees) were proposed and the Department undertook the rule-making process required by Chapter 91, HRS. New tariff rates for wharfage and pipeline fees became effective on February 1, 2017 and thereafter, new tariff rates for passenger fees became effective July 1, 2018. New tariff rates for dockage and port entry fees became effective July 1, 2018. Additional details of these rate changes are disclosed below.

- Cargo wharfage rates increased, as follows:

    - 17% on February 1, 2017
    - 15% on October 1, 2017
    - 15% on July 1, 2018
    - 3% or annual percentage increase in the CPI, whichever is greater, commencing on July 1, 2019 for Fiscal Year 2020, January 1, 2021 for Fiscal Year 2021 and annually every July 1 thereafter.

- Cruise ship passenger fees increased on July 1, 2018 to $8.00 per passenger visiting any port of the Harbor System, other than the port of Honolulu. The rate per passenger visiting the port of Honolulu was changed to $15.00 to reflect the differentiation of passenger visits to the port of Honolulu from passenger visits to other Hawaii ports.

- Dockage, and port entry fee rates changed on July 1, 2018 by establishing a new rate category for vessels of overall length exceeding 900 linear feet, followed by rate increases of 20% on July 1, 2019 and by additional increases scheduled to occur as follows:

    - 15% on January 1, 2021 in Fiscal Year 2021
    - 15% on July 1, 2021 in Fiscal Year 2022

Due to the COVID-19 pandemic the effective date of certain rate increases has been deferred from July 1, 2020 to January 1, 2021.

Services Revenues

General. Services revenues represent the largest source of operating revenues for the Harbor System. Services revenues earned were $113.2 million, $136.0 million and $159.2 million for the fiscal years ended June 30, 2017, June 30, 2018 and June 30, 2019, respectively, and accounted for 82.2%, 82.4% and 83.5% of operating revenues in such fiscal years. Services revenues are derived from tariffs assessed on the activities of ships and the handling of cargo and include wharfage charges, dockage fees, port entry fees, demurrage, mooring charges and fees for other services.

The revenues disclosed above reflect the impact of the tariff rate changes implemented beginning March 1, 2010, which provided for annual rate increases thereafter until new discrete tariff rates were implemented effective February 1, 2017, October 1, 2017 and July 1, 2018.

Wharfage Charges. Wharfage charges represent the largest component of services revenues. Wharfage charges including passenger fees accounted for $103.5 million, $126.4 million and $149.9 million of operating revenues in the fiscal years ended June 30, 2017, June 30, 2018 and June 30, 2019, respectively, and comprised approximately 91.4%, 92.9% and 94.2% of total services revenues in each of such fiscal years. Wharfage charges are assessed against all shipments of cargo conveyed over, on or under any pier, wharf or terminal facility or to or from any vessel at such a facility of the Harbor System. Also included in wharfage charges are passenger fees assessed against all cruise ship passengers disembarking and embarking at a port in the Harbor System. Passenger fees included in wharfage charges totaled $8.1 million, $8.2 million and $9.0 million in the fiscal years ended June 30, 2017, June 30, 2018 and June 30, 2019, respectively.

Wharfage rates are established by type of cargo with differing rate categories for overseas shipments (from or to a United States mainland or foreign port), and inter-island shipments. Nearly all non-bulk cargo is shipped through the Harbor System in containers, with respect to which, wharfage charges are assessed based upon the length of the container. The following Table 2 presents wharfage rates for selected types of cargo from July 1, 2016 to June 30, 2020.

TABLE 2
WHARFAGE CHARGES FOR SELECTED CATEGORIES OF CARGO

	July 1, 2016 to January 31, 2017	February 1, 2017 to Sept. 30, 2017	Oct. 1, 2017 to June 30, 2018	July 1, 2018 to June 30, 2019	July 1, 2019 to June 30, 2020
CONTAINERS					
Incoming Foreign Overseas (per linear foot)					
Incoming Foreign Overseas 24 feet or less	$89.56	$104.34	$119.99	$137.99	$142.13
Incoming Foreign Overseas Greater than 24 feet	179.13	208.69	239.99	275.99	284.27
Incoming Foreign Greater than 45 feet	-	313.04	360.00	353.27	363.87
Incoming Domestic Overseas 24 feet or less	89.56	104.34	119.99	137.99	142.13
Incoming Domestic Overseas Greater than 24 ft.	179.13	208.69	239.99	275.99	284.27
Incoming Domestic Greater than 45 feet	-	313.04	360.00	353.27	363.87
Outgoing Overseas 24 feet or less	89.56	104.34	119.99	137.99	142.13
Outgoing Overseas Greater than 24 feet	179.13	208.69	239.99	275.99	284.27
Outgoing Domestic Greater than 45 feet	-	313.04	360.00	353.27	363.87
Inter-island 24 feet or less	49.76	57.97	66.67	76.67	78.97
Inter-island Greater than 24 feet	99.51	115.93	133.32	153.32	157.92
Inter-island Greater than 45 feet	-	173.90	199.99	196.25	202.14
AUTOMOBILES (per vehicle)					
Incoming Foreign Overseas	34.84	40.60	46.69	53.69	55.30
Incoming Domestic Overseas	34.84	40.60	46.69	53.69	55.30
Outgoing Overseas	34.84	40.60	46.69	53.69	55.30
Inter-island	20.90	24.35	28.00	32.20	33.17
LUMBER (per thousand board feet)					
Incoming Domestic Overseas	6.60	7.69	8.84	10.17	10.48
GENERAL MERCHANDISE (per ton)					
Incoming Foreign Overseas	4.22	4.92	5.66	6.51	6.71
Incoming Domestic Overseas	4.22	4.92	5.66	6.51	6.71
Outgoing Overseas	4.22	4.92	5.66	6.51	6.71
Inter-island	2.73	3.18	3.66	4.21	4.34
FUEL OIL (per barrel)					
Incoming, State-owned pipeline	0.30	0.35	0.40	0.46	0.47
Incoming, privately-owned pipeline (1)	0.16	0.18	0.21	0.24	0.25
PASSENGER FEES (per passenger)					
Port of Honolulu Only (2)					
Embarking/Disembarking and In-transit (3)	7.50	7.50	7.50	15.00	15.00
Other Hawaii Ports					
Embarking/Disembarking	7.50	7.50	7.50	8.00	8.00
In-transit (3)	7.50	7.50	7.50	8.00	8.00
WATER (per thousand gallons),					
State-owned pipeline	3.95	4.62	5.31	6.11	6.29

(1) *Located at facilities of the Harbor System.*

(2) *Effective July 1, 2018, differentiation of passenger fees for port visits to Honolulu from visits to other Hawaii ports.*

(3) *Consists of passengers in transit on a vessel making a continuous trip whose point of origin and termination is a State of Hawaii port.*

NOTE: During the fiscal year ended June 30, 2017, two tariff increases occurred, a 3% increase effective July 1, 2016 and an approximately 17% increase that took effect on February 1, 2017, resulting in a 20% cumulative increase over the tariff rates that existed at June 30, 2016.

The Department collects wharfage on a self-reporting basis. Each of the shipping lines using the ports comprising the Harbor System is responsible for reporting to the Department the wharfage owed for each voyage and submitting payment of such wharfage within 45 days after the completion of handling cargo over state wharves.

Dockage Fees. Dockage fees represent the second largest component of services revenues. Dockage fees accounted for $4.9 million, $5.7 million and $5.0 million of operating revenues in the fiscal years ended June 30, 2017, June 30, 2018 and June 30, 2019, respectively, and comprised approximately,4.3%, 4.2% and 3.1% of services revenues in such fiscal years.

Dockage fees are assessed against all vessels using a dock or other State-owned structure in a port in the Harbor System at rates based on the length of the vessel per 12 hours of use. The dockage fee assessed in connection with an inter-island voyage, is approximately 60% of the dockage fee assessed in connection with an overseas voyage. Dockage fees assessed during the fiscal year ended June 30, 2019 in connection with an inter-island voyage, ranged from $17.88 to $1,897.50 per 24-hour period depending on vessel length, with such rates increasing by approximately 20% on July 1, 2019 ranging from $21.50 to $2,277.00. The dockage fees assessed during the fiscal year ended June 30, 2019 in connection with an overseas voyage, ranged from $34.38 to $3,162.50 per 24-hour period depending on vessel length, with such rates increasing by approximately 20% on July 1, 2019 ranging from $41.25 to $3,795.00.

Dockage fees are assessed and billed by the Department based on the electronic records of actual vessel movements that are maintained by each district of the Harbor System. All dockage fees are payable 30 days from the date of the invoice.

Demurrage. Demurrage is a charge assessed against cargo that remain on a pier or terminal area beyond the normal time provided for loading or unloading. Demurrage accounted for approximately$2.1 million, $1.5 million and $1.8 million of operating revenues in each of the fiscal years ended June 30, 2017, June 30, 2018 and June 30, 2019, respectively, and comprised approximately 1.9%, 1.1% and 1.1% of services revenues in such fiscal years. Demurrage rates assessed during the fiscal year ended June 30, 2019 were typically $0.62 per linear foot per day for the first five days and $1.23 per linear foot per day thereafter for containerized cargo and shipping devices, which are applied at the end of a two-stage five-day storage period.

Demurrage fees are self-reported and the shipping companies that use the ports comprising the Harbor System are responsible for reporting the demurrage owed for each voyage to the Department. No audits are performed for demurrage reports.

Facilities Security Charge. Effective February 1, 2017, the Department implemented a Facilities Security Charge of $15.00 per container that is assessed on each container transported from or to an overseas port to or from a port in the Harbor System. This fee increased by 15% on October 1, 2017 and on July 1, 2018 and increased annually by 3% or the annual percentage increase in the CPI, whichever is greater commencing on July 1, 2019 for fiscal year 2020, January 1, 2021 for fiscal year 2021 and annually every July 1 thereafter.

Rental Income

Rental income is the second major source of operating revenues for the Harbor System. Rental income accounted for $22.9 million, $27.7 million and $29.9 million of operating revenues in the fiscal years ended June 30, 2017, June 30, 2018 and June 30, 2019, respectively, and comprised approximately 16.6%, 16.8% and 15.7% of total operating revenues for those fiscal years. Rental income includes charges for wharf space and land, storage, pipeline usage and automobile parking space. Rental income for all fiscal years represents net rental revenues after deducting the provision for doubtful accounts.

The Department derives rental income principally from leasing of land and improvements under revocable permits and leases. Such rental income under permits and leases accounted for $9.1 million, $13.9 million and $14.2 million of net rental income in the fiscal years ended June 30, 2017, June 30, 2018 and June 30, 2019, respectively, and comprised approximately 39.7%, 50.2% and 47.5% of rental income in such fiscal years. Rental rates for revocable permits are determined by real estate appraisal and annual escalating rates of 2.5% for Honolulu Harbor, Kalaeloa Barbers Point Harbor 2.6%, and 3.0% per annum for neighbor island ports. The rental rates under leases may be fixed for periods of five years or more. Currently, revenues derived from leases constitute approximately 72% and revenues from revocable permits constitute approximately 28% of the total revenues from leases and permits, respectively.

Rental amounts assessed for leases are based upon the independently appraised value of the property leased. Leases are issued by direct negotiation or by public auction. When rentals are determined by public auction, however, the price at which bidding is started at a public auction may be less than the appraised value. For leases with terms exceeding ten years, the rent generally is fixed for the initial five-year period, with rent increases of 15%, over the then existing rent amount, scheduled to occur at the start of the sixth year and at the start of the eleventh year of the lease to include the fifteenth year of the lease term. For leases with terms exceeding fifteen years, the leases are reopened at the start of the fifteenth year and at the start of the twenty-fifth year, such that new rental amounts are determined based upon the values indicated by independent appraisals of the property leased with such new rental amounts to take effect at the start of the fifteenth year and at the start of the twenty-fifth year of the lease.

The Department has land and building spaces rented to third-parties issued through 176 revocable permits and 61 lease agreements. The rental income generated from leases by the top ten lessees of the Department represented approximately 46%, 52% and 47% of total annual lease and revocable permit rents for fiscal years ended June 30, 2017, June 30, 2018 and June 30, 2019, respectively.

Other Operating Revenues

Other operating revenues, including reimbursement for the cost of utilities furnished to ships, sales of materials and supplies and other miscellaneous items, accounted for approximately $1.6 million, $1.4 million and $1.7 million for the years ended June 30, 2017, June 30, 2018 and June 30, 2019, respectively. This represented approximately 1.2%, 0.8% and 0.8% of operating revenues in those fiscal years.

Interest Income

In addition to operating revenues, the Department received interest income from investments such as certificates of deposits, direct finance leases and U.S. Treasury obligations. The State Director of Finance pools any monies of the State, and invests the cash balances that are estimated to be in excess of the cash required to meet immediate obligations. The State manages this investment pool, in which the Department and various State departments and agencies participate. The interest income received by the Department in any fiscal year depends on the amount available for investment, the prevailing interest rates and restrictions on the investment practices of the State, that affect the types of investments made. Interest income from investments other than direct finance leases is included in Net Revenues and totaled $2.4 million, $5.5 million and $7.9 million in the fiscal years ended June 30, 2017, June 30, 2018 and June 30, 2019, respectively.

As of August 31, 2020, 9% of the State's investment portfolio and cash in banks consisted of time certificates with banks, 31% consisted of U.S. Federal Agency and Government Sponsored Entity Securities, 48% consisted of U.S. Treasury securities, and 12% consisted of cash in bank accounts.

DEPARTMENT OF TRANSPORTATION

Department Organization

The Department is one of 18 principal executive departments of the State. Chapter 26, HRS, empowers the Department to establish, maintain and operate the transportation facilities of the State, including highways, airports, harbors and other transportation facilities. The Department's activities are carried out through three primary operating divisions: Airports, Harbors and Highways.

Through the Harbors Division, the Department exercises control and management of the Harbor System comprised of harbor and waterfront improvements, docks, ports, wharves, quays, bulkheads and landings belonging to or controlled by the State and all vessels and shipping lines using the same. The Harbors Division operates the Harbor System as a single integrated system for management and financial purposes.

Department Management

The Department is headed by the Director of Transportation, a single executive appointed by the Governor and confirmed by the State Senate. The Governor is authorized to appoint a First Deputy Director with Senate confirmation, and without State Senate confirmation, three additional Deputy Directors of Transportation. The Director and Deputy Directors of Transportation serve four-year terms. The Director and Deputy Directors serve terms
co-terminus with the Governor's term.

The Harbors Division is managed by a Harbors Administrator. Each harbor within a county is referred to as a district, and is managed by a district manager or harbormaster. The Staff Services Office, headed by an Administrative Services Officer, is responsible for: personnel; budget; property management; financial management; methods, standards and evaluation, data processing; and office services. The Engineering Branch, headed by an Engineering Program Manager, performs all planning, design, construction and maintenance engineering functions for the Harbors Division. The Emergency Disaster Office, headed by a Program Specialist, is responsible for all emergency disaster preparedness, response and recovery.

Management Personnel

The following are the senior executives of the Department responsible for the management of the State Harbor System:

Jade T. Butay, Director, has served as Director of the Department of Transportation since 2017. Previously, Mr. Butay served as Deputy Director of Administration at the Department of Transportation from 2011 to 2013 and again from 2015 to 2017. Between his time serving as Deputy Director of Administration, Mr. Butay served as Deputy Director at the Department of Labor and Industrial Relations. Prior to commencing his service for State government, Mr. Butay served in various leadership positions in the private sector. Mr. Butay received a bachelor's degree in Business Administration from the University of Hawaii and a Master of Business Administration degree from Babson College.

Derek J. Chow, Deputy Director, assumed his position as Harbors Division Deputy Director in January 2019. Mr. Chow previously served as Senior Project Manager for SSFM International, a consulting engineering firm in the State, and Chief of the Civil & Public Works Branch of the US Army Corps of Engineers, Honolulu District. In his role at USACE, Mr. Chow oversaw all water resources project development throughout the State, American Samoa, Guam, and Northern Mariana Islands, reimbursable work for the US Department of Interior in the Republic of Palau, Federated States of Micronesia, and Republic of the Marshall Islands, and work for the State Department's Millennium Challenge Corporation in the Philippines. Mr. Chow also served as a Resident Engineer overseeing $50M construction in Tikrit, Iraq and as Chief, Water and Infrastructure Division overseeing the $1.2 Billion, Afghanistan Infrastructure Program. Mr. Chow received his B.S. in Civil Engineering from Seattle University and a Master in Public Administration degree from the University of Hawaii

Davis K. Yogi, Administrator, Harbors Division, assumed his present position in October 2007. Prior to assuming this position, Mr. Yogi was the Administrator of the Airports Division from 2002 to 2007. He also served previously as Chief Negotiator and Director of the Department of Human Resources Development, and has more than 11 years of private sector experience as Vice President of Environmental Operations and Government Affairs with profit and loss responsibilities for a C. Brewer and Company subsidiary. Mr. Yogi received a Bachelors in Business Administration degree from the University of Hawaii.

Rex Y. Akutagawa, Administrative Services Officer, Harbors Division, assumed his position in January 2020. He oversees the Harbors Division's financial management and property management programs, and provides budget, information systems and management analysis support services. Prior to assuming this position, Mr. Akutagawa worked in various industries of the private sector and, has more than 30 years of experience in an executive level finance/operations role. He graduated from the University of Phoenix with a Bachelor of Science in Accounting degree in 2009.

Carter W.S. Luke, Engineering Program Manager, Harbors Division, has held this position since March 2010. Prior to that date, Mr. Luke worked in various engineering positions with the Department for 19 years. Mr. Luke received a Bachelor of Science degree in engineering from the University of Hawaii in 1986 and obtained his Hawaii professional engineer's license in July 1992.

Employees

The Harbors Division has a workforce of approximately 234 permanent employees as of October 1, 2020. State law grants public employees, except those excluded from any appropriate bargaining unit, the right to organize for the purpose of collective bargaining. Each recognized bargaining unit designates an employee organization as the exclusive representative of all employees of such unit, which organization negotiates with the State and the various counties who comprise the public employer. Under State law, if an impasse in any negotiation is declared, only the United Public Workers blue collar workers have the right to strike.

The majority of Harbors Division employees are represented by two labor unions representing six bargaining units as listed below, while certain managers and certain other employees are excluded from collective bargaining.

- United Public Workers Local 646 ("the UPW") (Unit 1 Blue collar employees)
- Hawaii Government Employees' Association, Local 152 ("the HGEA") (Unit 2 Blue collar supervisors; Unit 3 white collar workers; Unit 4 white collar supervisors; Unit 13 professional and scientific employees and Unit 14 State law enforcement officers).

The status of negotiations and awards for wages and health benefits for the period from July 1, 2019 to June 30, 2021 is as follows:

Unit 1 (blue collar workers): An agreement was ratified by UPW on August 14, 2017, covering the four-year period from July 1, 2017 through June 30, 2021. The last two years of the agreement provides for across the board increases of 2% on July 1, 2019 and 2% on July 1, 2020. An agreement for additional across the board increases of 1.2% January 1, 2020 and January 1, 2021 was ratified in April 2019. Initial proposals for a successor agreement were exchanged on September 30, 2020. No negotiation meetings are scheduled at this time.

Unit 2 (blue collar supervisors): The current contract expires June 30, 2021. The agreement was ratified by the HGEA on October 24, 2019, providing for a $2,000 lump sum payment for all employees on July 1, 2019; across-the-board increases and/or step adjustments of 5.29% on July 1, 2020; and an across-the-board increase of 1.20% on January 1, 2021. The agreement also provides for adjustments to uniform allowances, and meal allowances. Funding for the agreement was approved by the county councils and State legislature, and the Governor signed the funding bill for the State into law as Act 48, SLH 2020. Initial proposals for a successor agreement were exchanged on June 30, 2020. No negotiation meetings are scheduled at this time.

Unit 3 (white collar workers): The current contract expires June 30, 2021. The agreement as ratified by HGEA on January 8, 2020, providing a $2,800 lump sum payment for all employees July 1, 2019. The agreement also provides for a one-step adjustment for most employees or an equivalent lump sum payment for employees not eligible for the step adjustment on July 1, 2020. Also, on July 1, 2020, the lowest step on the salary schedule is being eliminated and the lowest five ranges of the salary schedule are to be increased 2% - 10.1%. On January 1, 2021, an across-the-board increase of 3.46% is provided. The agreement also provides for adjustments to standby pay and time off for certain instances of overtime worked. Funding for the agreement was approved by the county councils and State legislature, and the Governor signed the funding bill for the State into law. Initial proposals for a successor agreement were exchanged on June 30, 2020. No negotiation meetings are scheduled at this time.

Unit 4 (white collar supervisors): The current contract expires June 30, 2021. The agreement was ratified by HGEA on March 3, 2020, providing a 5.98% lump sum payment for all employees July 1, 2019. The agreement also provides for the elimination of the lowest step on the salary schedule and an across-the-board increase of 3.60% on July 1, 2020. On January 1, 2021, an across-the-board increase of 3.74% is provided. The agreement also provides for adjustments to standby pay and time off for certain instances of overtime worked. Funding for the agreement was approved by the county councils and State legislature, and the Governor signed the funding bill for the State into law. Initial proposals for a successor agreement were exchanged on June 30, 2020. No negotiation meetings are scheduled at this time.

Unit 13 (professional and scientific employees): The current contract expires June 30, 2021. The agreement was ratified by HGEA on October 11, 2019, providing for across-the-board increases of 2.15% on July 1, 2019 and 2.03% on July 1, 2020, step movements for eligible employees, and a $750 lump sum payment each year for employees not eligible for step movements during the contract. The agreement also provides for adjustments to standby pay, uniform allowances, meal allowances, and time off for certain instances of overtime worked. Funding for the agreement was approved by the county councils and State legislature, and the Governor signed the funding bill for the State into law. Initial proposals for a successor agreement were exchanged on June 30, 2020. No negotiation meetings are scheduled at this time.

Unit 14 (State law enforcement officers and State and county ocean safety and water safety officers): The current contract expires June 30, 2021. An arbitration award was issued April 15, 2020, providing for across-the-board increases of 4.5% on July 1, 2019 and July 1, 2020. The award also provides for step movements for eligible employees. Funding for the agreement was approved by the county councils and State legislature, and the Governor signed the funding bill for the State into law. Initial proposals for a successor agreement were exchanged on September 30, 2020. No negotiation meetings are scheduled at this time.

Employee Health Care Benefits.

All regular employees of the Harbors Division are eligible for coverage under health plans provided through the State of Hawaii Employer-Union Health Benefit Trust Fund (the "Trust Fund"), which was established in 2003 to design, provide and administer health and other benefit plans for State and county employees, retirees and their dependents. The Trust Fund is administered by a ten-member Board of Trustees appointed by the Governor (the "EUTF Board") comprised of five union representatives and five management representatives. The EUTF Board is responsible for determining the nature and scope of health plans offered by the Trust Fund, negotiating and entering into contracts with insurance carriers, ruling on eligibility and establishing management policies for the Trust Fund and overseeing Trust Fund activities. The Trust Fund currently provides medical, prescription drug, dental, vision, chiropractic and group life benefits. Benefits, with respect to regular employees, are funded by a combination of employer contributions, an operating expense of the Harbors Division, that are set by collective bargaining agreement or by executive order (with respect to non-union employees), and employee contributions through payroll deductions. Benefits for retirees are funded by a statutory formula.

Public employer contributions to the Trust Fund for the health and other benefit plans of public employees and their dependents are determined under HRS Chapter 89C, or by way of applicable public sector collective bargaining agreements. Except for reimbursement of medical insurance coverage under Medicare, public employer contributions to fund the health and other benefit plans of retirees are not to exceed certain monthly contribution levels specified in HRS Chapter 87A.

The Trust Fund currently provides medical, prescription drug, dental, vision, chiropractic and group life benefits. Benefits with respect to regular employees are funded by a combination of employer contributions set by collective bargaining agreement or by executive order (with respect to non-union employees) and employee contributions through payroll deductions. Benefits for retirees are funded by a statutory formula.

In recent years, public and private health plan providers nationwide and in Hawaii, including the Trust Fund, have experienced substantial increases in health care costs. In the case of the Trust Fund, the current fiscal situation faced by State and county employers has made it extremely difficult for the employers to increase employer contributions for health benefits in order to maintain the historical employer-employee contribution ratio. In the past, the EUTF Board has attempted to mitigate health plan rate increases by modifying benefits, and employees have been required to bear a larger share of the increased rates. The Harbors Division cannot predict what actions will be taken (including changes to future plan benefits or employer-employee contribution rates) to address the impact of rising health care costs on the Trust Fund or what financial effects such changes may have on the Harbors Division.

State Employees' Retirement System.

THIS SECTION CONTAINS CERTAIN INFORMATION RELATING TO THE EMPLOYEES' RETIREMENT SYSTEM OF THE STATE OF HAWAII (THE "SYSTEM," THE "STATE RETIREMENT SYSTEM" OR "ERS"). THE INFORMATION CONTAINED IN THIS SECTION IS PRIMARILY DERIVED FROM INFORMATION PRODUCED BY THE SYSTEM, ITS INDEPENDENT ACCOUNTANT AND ITS ACTUARY. NONE OF THE STATE, THE DEPARTMENT OF THE HARBORS DIVISION HAS INDEPENDENTLY VERIFIED THE INFORMATION PROVIDED BY THE SYSTEM, ITS INDEPENDENT ACCOUNTANT AND ITS ACTUARY, AND MAKES NO REPRESENTATIONS NOR EXPRESSES ANY OPINION AS TO THE ACCURACY OF SUCH INFORMATION.

All regular employees of the Harbors Division are covered under the State Retirement System), a cost sharing, multiple employer defined benefit pension plan that provides retirement, disability and death benefits funded by employee contributions and by employer contributions. This section contains certain information relating to the State Retirement System. The comprehensive annual financial report of the State Retirement System and most recent valuation report of the State Retirement System may be obtained by contacting the State Retirement System. The comprehensive annual financial reports of the State Retirement System are also available on the State's website at http://portal.ehawaii.gov/ , and other information about the State Retirement System are available on the State Retirement System's website at http://ers.ehawaii.gov/. Such documents and other information are not incorporated herein by reference.

The System uses a variety of assumptions to calculate the actuarial accrued liability, actuarial value of assets and other actuarial calculations and valuations of the System. No assurance can be given that any of the assumptions underlying such calculations and valuations (including, but not limited to, the current actuarial assumptions adopted by the System's Board of Trustees, the System's benefit structure or the actuarial method used by the System) will reflect the actual results experienced by the System. Variances between the assumptions and actual results may cause an increase or decrease in, among other things, the System's actuarial value of assets, actuarial accrued liability, unfunded actuarial accrued liability or funded ratio. Actuarial assessments are "forward-looking" information that reflect the judgment of the fiduciaries of the pension plans, and are based upon a variety of assumptions (including, but not limited to, the current actuarial assumptions, benefit structure or actuarial method used by the System), one or more or which may prove to be inaccurate or be changed in the future. Actuarial assessments will change with the future experience of the pension plans. See "—General Information" and "—Actuarial Valuation" herein for more information on the actuarial assumptions used by the System.

Much of the disclosure set forth in this "State Employees' Retirement System" section is based on the Report to the Board of Trustees on the 94th Annual Actuarial Valuation for the Year Ended June 30, 2019 (the "2019 Valuation Report"), which is the most recent valuation report of the System.

The information presented in the 2019 Valuation Report was based on actuarial assumptions adopted by the System's Board of Trustees in August 2019 effective with the June 30, 2019 valuation. This is the seventh valuation with new members under the new tier of benefits and member contribution rates. However, the liability for this group of employees represents just a small fraction of the total liabilities of the system. In addition to the new tier of benefits, employer contribution rates are also increasing. Fiscal year 2019 represented the 2nd year of a four-year phase-in of increases in the employer contribution rates. Included in the 2019 Valuation Report are projections showing the long-term impact of both the increased employer contributions and the change in benefits for employees first hired after June 30, 2012. In June 2012, the Governmental Accounting Standards Board ("GASB") voted to approve two new statements relating to the accounting and financial reporting for public employee pension plans by state and local governments. Statement No. 67, Financial Reporting for Pension Plans ("GASB 67"), was effective for reporting periods beginning after June 15, 2013. GASB 67 requires enhanced pension disclosures in notes and required supplementary information for financial reports of pension plans. Statement No. 68, Accounting and Financial Reporting for Pensions ("GASB 68"), was effective for fiscal years beginning after June 15, 2014. GASB 68 requires governments providing defined benefit pension plans to recognize pension obligations as balance sheet liabilities (as opposed to footnote disclosures), require more immediate recognition of certain changes in liabilities, require use of the entry age normal actuarial cost method (currently employed by the System) for reporting purposes, and limit the smoothing of differences between actual and expected investment returns on pension assets. In certain cases, a lower discount rate will be required for valuing pension liabilities. In addition, employers participating in cost-sharing, multiple employer defined benefit plans will be required to report their proportionate shares of the collective net pension liability and expense for such plans.

The State implemented GASB 68 beginning with the fiscal year ending June 30, 2015. Like most public employers, the State reflected pension liabilities directly on its Statement of Net Position, which resulted in a reduction in the State's reported net position. As allowed under GASB 68 the State is reporting its GASB 68 disclosure items one year in arrears (information measured as of June 30, 2019 is reported as of June 30, 2020). The amount of the ERS net pension liability (measured as of June 30, 2019, the most recent information available) allocated to the State (not including the University of Hawaii) is approximately $7.9 billion, or approximately 56% of the $14.17 billion net pension liability for all participating employers.

Harbor System's Share of State Employee's Retirement System

The Harbor System's share of the State Retirement System costs for the four fiscal years ended June 30, 2016 through June 30, 2019 were: $2.0 million for the fiscal year ended June 30, 2016; $2.1 million for the fiscal year ended June 30, 2017, $2.2 million for the fiscal year ended June 30, 2018 and $2.4 million for the fiscal year ended June 30, 2019.

General Information

The System began operation on January 1, 1926. The System is a cost sharing, multiple employer defined benefit pension plan. The actuarial information presented herein is provided for all employers of the System in total. The System's plan year runs from July 1 of each year through the following June 30. The System covers all regular employees of the State and each of its counties, including judges and elected officials. As it is a cost sharing plan, the System does not allocate its liabilities among participating employers. However, based on the new GASB 68 financial reporting requirements for employers, the State's share of the System, based on employer contributions, is approximately 69% (including the University of Hawaii), with the remaining 31% share as the responsibility of the four counties. Although the State's employer contributions are recorded as expenses of the General Fund, approximately 25% are reimbursed from various non general funds of the State.

The statutory provisions of HRS Chapter 88 govern the operation of the System. Responsibility for the general administration of the System is vested in a Board of Trustees, with certain areas of administrative control being vested in the Department of Budget and Finance. The Board of Trustees consists of eight members: the Director of Finance of the State, ex officio; four members of the System (two general employees, one teacher, and one retiree) who are elected by the members and retirees of the System; and three citizens of the State (one of whom shall be an officer of a bank authorized to do business in the State, or a person of similar experience) who are appointed by the Governor and may not be employees of the State or any county. All contributions, benefits and eligibility requirements are established by statute, under HRS Chapter 88, and may only be amended by legislative action.

Prior to 1984, the System consisted of only a contributory plan. Legislation enacted in 1984 created a noncontributory retirement plan for certain members of the System who are also covered under Social Security. The noncontributory plan provides for reduced benefits and covers most employees hired after June 30, 1984 and employees hired before that date who elected to join the plan. Police officers, firefighters, other enforcement officials, certain elected and appointed officials and other employees not covered by Social Security are excluded from the noncontributory plan. The minimum service required for retirement eligibility is five years of credited service under the contributory plan and ten years of credited service under the noncontributory plan. Both the contributory and noncontributory plans provide a monthly retirement allowance based on the employee's age, years of credited service, and average final compensation (the "AFC"). The AFC is the average salary earned during the five highest paid years of service, including the vacation payment, if the employee became a member prior to January 1, 1971 or the three highest paid years of service, excluding the vacation payment (whichever is higher). The AFC for members hired after that date is based on the three highest paid years of service, excluding the vacation payment.

On July 1, 2006, a new defined benefit contributory plan (the "Hybrid Plan") was established pursuant to Act 179, SLH 2004. Members in the Hybrid Plan are eligible for retirement with full benefits at age 62 with 5 years of credited service or age 55 and 30 years of credited service. Members receive a benefit multiplier of 2% for each year of credited service in the Hybrid Plan. Most new employees hired from July 1, 2006 were required to join the Hybrid Plan.

In December 2010, the System's actuary completed an Actuarial Experience Study for the five-year period ended June 30, 2010 (the "2010 Experience Study"). In fiscal year 2011, based in part on the results of the Experience Study, the Legislature acted to limit the growth of the State's pension liabilities by passing Act 163, SLH 2011. This Act, effective July 1, 2012, enacts certain changes to the funding of the System and the benefit structure for new members in all plans. Funding changes include increasing the statutorily required employer contribution rates (see "—Funding Status" below). Benefit changes for new members include increasing the age and service requirements for retirement eligibility, reducing the retirement benefit multiplier and reducing the interest rate credited to employee contributions to 2%. The change in the interest rate credited to employee contributions to 2% is for new members in the Hybrid Plan and Contributory Plan hired on or after July 1, 2011. All other benefit changes are effective for new members hired on or after July 1, 2012.

Act 163, SLH 2011, also reduced the investment yield rate assumption for fiscal year 2011 from 8% to 7.75% and gave authority to the Board of Trustees to adopt all assumptions to be used for actuarial valuations of the System, including the assumed investment yield rate for subsequent fiscal years. Effective June 30, 2012 and July 1, 2012, the Legislature enacted Acts 152 and 153, SLH 2012, respectively, to define compensation for retirement purposes as normal periodic payments excluding overtime, supplemental payments, bonuses and other differentials, and to assess employers annually for all retiree pension costs attributable to non-base pay during the last years of retirement.

A subsequent five-year actuarial experience study was completed on July 5, 2016, for the five-year period which ended on June 30, 2015 (the "2015 Experience Study"). To better reflect the recent actual experience of the System, in December 2016 the Board of Trustees adopted the assumption recommendations set for in the 2015 Experience Study. The Board also adjusted the investment yield rate assumption to 7.00%.

On August 12, 2019, the System's actuary completed an Actuarial Experience Study for the three-year period ended June 30, 2018 (the "2018 Experience Study"). Based on the current capital market assumptions from ERS's investment consultant and the System's target allocation, the actuaries verified that the 7.00% investment return was close to the median expected geometric return and there were no recommended changes to the investment return assumption.

The next Actuarial Experience Study, for the three-year period ending June 30, 2021, is expected in July 2022.

In fiscal year 2011, the Legislature acted to improve and protect the System's funded status by placing a moratorium on the enhancement of benefits. Act 29, SLH 2011, provides that there shall be no benefit enhancement for any group of members until the actuarial value of the System's assets is 100 percent of the System's actuarial accrued liability.

The demographic data for each annual June 30 valuation is collected as of the March 31st preceding the valuation date. As of March 31, 2019, the contributory plan covered 5,538 active employees (which includes police and fire) or 8.4% of all active members of the System, the noncontributory plan covered approximately 11,967 active employees or 18.0%, and the Hybrid Plan covered 48,878 active members or 73.6%. The Hybrid Plan membership will continue to increase in the future as most new employees hired from July 1, 2006 will be required to join this plan.

As of March 31, 2019, the System's membership comprised approximately 66,383 active employees, 9,321 inactive vested members and 49,885 pensioners and beneficiaries. The following table shows the number of active members, inactive vested members and retirees and beneficiaries of the System as of March 31, 2017, 2018 and 2019:

Category	March 31, 2017	March 31, 2018	March 31, 2019
Active	65,911	66,271	66,383
Inactive, vested	9,241	9,249	9,321
Retirees and beneficiaries	46,927	48,569	49,885
Total	**122,079**	**124,089**	**125,589**

Funded Status

Net Pension Liability

Since the adoption of GASB 67 in fiscal year 2014 by the ERS and GASB 68 in fiscal year 2015 by all of its participating employers, including the State, the System's actuary has prepared separate annual actuarial valuation reports, one of which provides information for funding purposes and one of which provides the disclosures required by GASB 67 and 68 that are incorporated into the financial statements of the ERS and its participating employers (the "GASB 67/68 Report"). The most recent GASB 67/68 Report was delivered in February 2020 and presents as of June 30, 2020 the required information measured as of June 30, 2019 as permitted by GASB 68. As reported therein, the total pension liability of the System was $31,396,447,685 and the System's fiduciary net position (representing the value of the assets of the System) was $17,227,026,987, resulting in a net pension liability of the System of $14,169,420,698. Of such liability, the State's proportionate share was approximately $7,899,326,314 (not including approximately $1,791,097,596 allocated to the University of Hawaii), representing approximately 56% of the total System net pension liability. The State estimates that the General Fund portion of the State's share is 75%.

Under GASB 67, projected benefit payments by the System are required to be discounted to their actuarial present values using a single discount rate that reflects a long-term expected rate of return on System investments. Such expected rate of return, and consequently the single discount rate, is set at 7.00%. GASB 68 further requires disclosure of the sensitivity of the net pension liability to changes in the assumed single discount rate by presenting the changes to the net pension liability associated with a 1% decrease and a 1% increase in the single discount rate. Applying a 6.00% discount rate, the $14,169,420,698 net pension liability would increase to $18,460,974,101, and applying an 8.00% discount rate, it would decrease to $11,079,581,746.

Unfunded Actuarial Accrued Liability

In addition to the annual GASB 67/68 Report, the actuary provides its annual valuation report based on the provisions of Chapter 88 of the HRS, as amended, and the actuarial assumptions adopted by the ERS Board of Trustees. This report determines whether current employer contribution rates are adequate to ensure that the unfunded actuarial accrued liability (the "UAAL") can be funded over a period not exceeding 30 years, describes the financial condition of ERS and analyzes changes in ERS's condition. The most recent such report is the 2019 Valuation Report, presenting the actuarial condition of the ERS as of June 30, 2019.

The valuation report as of June 30, 2016 (the "2016 Valuation Report") reported that the System's funded status had decreased compared to the prior year, which decrease was primarily attributable to the new actuarial assumptions adopted by the Board in December 2016, and, to a lesser degree, to investment and liability experience losses, resulting in a UAAL as of June 30, 2016 of $12.441 billion. Based on the then-current statutory contribution rates of 25.0% for police and fire employees and 17.0% for all other employees (see "-Funding Policy" below), and the new benefit tier for employees hired after June 30, 2012, the actuary determined in the 2016 Valuation Report that the remaining amortization period was 66 years. Because this period was not within 30 years (the maximum period specified by HRS Section 88-122(e)(1)), the financing objectives of the System were not being realized. Section 88 122(e)(1) of the HRS provides that the employer contribution rates are subject to adjustment when the funding period is in excess of 30 years. See "Funding Policy" below for information on increases in the employer contribution rates and benefits changes.

To bring the System's funding period to within 30 years as required by HRS Section 88-122(e)(1)), the Legislature adopted Act 17, SLH 2017 during the 2017 regular legislative session. Act 17 contains significant increases to employer contribution rates over a four-year period. The 2019 Valuation Report reported that the UAAL increased to $14.074 billion as of June 30, 2019, compared to $13.405 billion as of June 30, 2018. The investment returns on financial markets in fiscal year 2019 were less than the 7.0% assumption. Because of the lower return and the new actuarial assumptions adopted by the Board, the funded ratio remained unchanged in 2019 when compared to the prior year at 55.2% based on smoothed assets. Based on the assumptions used in preparing the 2016 Valuation Report and the future contribution rates established by the Legislature effective July 1, 2017 in Act 17, SLH 2017, the actuary determined that, as of the 2019 Valuation Report, the remaining amortization period was 26 years. Thus, the current contribution rates were sufficient to eliminate the UAAL over a period of 30 years or less as mandated by HRS Section 88 122(e)(1).

Funding Policy

Prior to fiscal year 2006, the System was funded on an actuarial reserve basis. Actuarial valuations were prepared annually by the consulting actuary to the Board of Trustees to determine the employer contribution requirement. In earlier years, the total actuarially determined employer contribution was reduced by some or all of the investment earnings in excess of the investment yield rate applied in actuarial valuations to determine the net employer appropriations to be made to the System. Act 327, SLH 1997, amended Section 88-107, HRS, so that, beginning with the June 30, 1997 valuation, the System retains all of its excess earnings for the purpose of reducing the unfunded actuarial accrued liability. However, Act 100, SLH 1999, reinstated the excess earnings credit for the June 30, 1997 and June 30, 1998 valuations. For those two valuations, the investment earnings in excess of a 10% actuarial return was to be applied as a reduction to the employer contributions. In accordance with the statutory funding provisions (Section 88-122, HRS, as amended by Act 147, SLH 2001), the total actuarially determined employer contribution to the pension accumulation fund was comprised of the normal cost plus the level annual payment required to amortize the unfunded actuarial accrued liability over a period of 29 years from July 1, 2000. The contribution requirement was determined in the aggregate for all employers in the System and then allocated to individual employers based on the payroll distribution of covered employees as of the March preceding the valuation date. The actuarially determined employer contribution derived from a valuation was paid during the third fiscal year following the valuation date, e.g., the contribution requirement derived from the June 30, 1998 valuation was paid into the System during the fiscal year ended June 30, 2001. The actuarial cost method used to calculate employer contributions was changed in 1997 by Act 327 from the frozen initial liability actuarial cost method to the entry age normal actuarial cost method effective with the June 30, 1995 actuarial valuation. Employer contributions were determined separately for two groups of covered employees: (1) police officers, firefighters, and corrections officers; and (2) all other employees who are members of the System.

The Harbors Division recognized pension expenses of $4,525,173 and $4,921,738, for the years ended June 30, 2019, and June 30, 2018, respectively. In addition, the Harbors Division made required pension contributions to ERS subsequent to the measurement date of $2,414,232 and $2,227,017 for the years ended June 30, 2019, and June 30, 2018, respectively. Act 17, SLH 2017, which became effective on July 1, 2017, established the employer contribution rates set forth below. These contribution rates were increased from prior contribution rates enacted in 2012, to bring the funding period of the System within 30 years:

TABLE 3

Employer Contribution effective starting	Police Officers and Firefighters (% of total payroll)	Other Employees (% of total payroll)
July 1, 2017	28.0	18.0
July 1, 2018	31.0	19.0
July 1, 2019	36.0	22.0
July 1, 2020	41.0	24.0

The Legislature also included $34.6 million in fiscal year 2017-2018 and $70.7 million in fiscal year 2018-2019 in the Executive Budget Bill (Act 49, SLH 2017), which was approved by the Legislature on May 2, 2017 to fund the contribution increases required by Act 17, SLH 2017.

Under the contributory plan, police officers, firefighters, and corrections officers are required to contribute 12.2% of their salary to the plan and most other covered employees are required to contribute 7.8% of their salary. Under the Hybrid Plan, covered employees are generally required to contribute 6.0% of their salary to the plan, with sewer workers in specified classifications, water safety officers and emergency medical technicians required to contribute 9.75% of their salary. Effective July 1, 2012, contribution rates for newly hired employees covered under the contributory and Hybrid Plan increased by 2% pursuant to Act 163, SLH 2011, such that the corresponding contribution rates for new employees as discussed in this paragraph will be 14.2%, 9.8%, 8.0% and 11.75%, respectively. Employees covered under the noncontributory plan do not make contributions.

Actuarial Methods

The System's actuary uses the entry age normal cost method. The most recent valuation was performed for the fiscal year ended June 30, 2019.

Since the State statutes governing the System establish the current employee and employer contribution rates, the actuarial valuation determines the number of years required to amortize (or fund) the UAAL. For the June 30, 2019 valuation, this determination was made using an open group projection due to the effects of the new lower tier of benefits adopted effective July 1, 2012 and the increased employer contribution rates mandated by Act 17, SLH 2017.

Because of this amortization procedure, any change in the unfunded actuarial accrued liability due to (i) actuarial gains and losses (ii) changes in actuarial assumptions or (iii) amendments, affects the funding period.

On an aggregate basis with regards to the contributory, the Hybrid, and the noncontributory plans, the total normal cost for benefits provided by the System for the fiscal year beginning July 1, 2019 was 14.13% of payroll, which was 15.72% of payroll less than the total contributions required by law (23.61% from employers plus 6.24% in the aggregate from employees). Since only 7.89% of the employers' 23.61% contribution is required to meet the normal cost (6.24% comes from the employee contribution), it is intended that the remaining 15.72% of payroll will be used to amortize any unfunded actuarial accrued liabilities over a period of years in the future, assuming that pay for new entrants increases by 3.50% per year. Due to the changes enacted in 2011 (new benefits and contribution rates for members hired after June 30, 2012) and in 2017 (increases in the employer contribution rates), the percentage of payroll available to amortize the unfunded actuarial liabilities is expected to increase each year for the foreseeable future.

The following table shows the valuation results as of June 30, 2019 plus a 30-year open group projection of ERS' assets and liabilities. The projection assumes no actuarial gains or losses in the actuarial liabilities or the actuarial value of assets. In addition, the projection reflects the changes made to the benefits and member contribution rates of employees hired after June 30, 2012, and the increased employer contributions required by Act 17, SLH 2017.

Projection Results Based on June 30, 2019 Actuarial Valuation

Valuation as of June 30,	Employer Contribution Rate for Fiscal Year Following Valuation Date	Compensation (in Millions)	Employer Contributions (in Millions)	Actuarial Accrued Liability (AAL, in Millions)	Actuarial Value of Assets (AVA, in Millions)	Unfunded Actuarial Accrued Liability (UAAL, in Millions)	Funded Ratio
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
2019	23.61%	$ 4,520	$ 1,067	$ 31,396	$ 17,322	$ 14,074	55.2%
2020	25.89%	4,633	1,200	32,617	18,292	14,325	56.1%
2021	25.89%	4,761	1,233	33,838	19,384	14,453	57.3%
2022	25.89%	4,893	1,267	35,061	20,504	14,557	58.5%
2023	25.89%	5,033	1,303	36,285	21,654	14,631	59.7%
2024	25.89%	5,176	1,340	37,511	22,836	14,674	60.9%
2025	25.89%	5,326	1,379	38,734	24,052	14,682	62.1%
2026	25.89%	5,483	1,420	39,954	25,303	14,651	63.3%
2027	25.89%	5,647	1,462	41,171	26,595	14,576	64.6%
2028	25.89%	5,818	1,507	42,386	27,933	14,453	65.9%
2029	25.89%	5,998	1,553	43,598	29,321	14,276	67.3%
2030	25.89%	6,186	1,602	44,810	30,770	14,041	68.7%
2031	25.89%	6,382	1,653	46,024	32,284	13,740	70.1%
2032	25.89%	6,586	1,705	47,239	33,871	13,368	71.7%
2033	25.89%	6,798	1,760	48,457	35,539	12,918	73.3%
2034	25.89%	7,019	1,818	49,679	37,296	12,383	75.1%
2035	25.89%	7,249	1,877	50,908	39,154	11,754	76.9%
2036	25.89%	7,488	1,939	52,146	41,123	11,023	78.9%
2037	25.89%	7,737	2,003	53,395	43,215	10,181	80.9%
2038	25.89%	7,997	2,071	54,661	45,444	9,217	83.1%
2039	25.89%	8,269	2,141	55,948	47,826	8,122	85.5%
2040	25.89%	8,552	2,215	57,262	50,379	6,883	88.0%
2041	25.89%	8,848	2,291	58,609	53,120	5,489	90.6%
2042	25.89%	9,155	2,371	59,996	56,070	3,926	93.5%
2043	25.89%	9,474	2,453	61,429	59,249	2,180	96.5%
2044	25.89%	9,806	2,539	62,916	62,680	236	99.6%
2045	25.89%	10,150	2,628	64,463	66,385	(1,923)	103.0%
2046	25.89%	10,507	2,721	66,075	70,388	(4,313)	106.5%
2047	25.89%	10,877	2,817	67,761	74,714	(6,953)	110.3%
2048	25.89%	11,260	2,916	69,526	79,390	(9,865)	114.2%

Projection assumes all assumptions exactly met, including a 7.00% annual return on the current actuarial value of assets.
Source: 2019 ERS Valuation Report.

Actuarial Valuation

The actuarial value of assets is equal to the market value, adjusted for a four-year phase-in of actual investment return in excess of or below expected investment return. The actual return is calculated net of investment and administrative expenses, and the expected investment return is equal to the assumed investment return rate multiplied by the prior year's market value of assets, adjusted for contributions, benefits paid, and refunds. The actuarial value of assets has been based on a four—year smoothed valuation that recognizes the excess or shortfall of investment income over or under the actuarial investment yield rate assumption. The actuarial asset valuation method is intended to smooth out year to year fluctuations in the market return. The excess or shortfall in the actual return during the year, compared to the investment yield rate assumption, is spread over this valuation and the next three valuations.

The System's actuary uses certain assumptions (including rates of salary increase, probabilities of retirement, termination, death and disability, and an investment yield rate assumption) to determine the amount that an employer must contribute in a given year to provide sufficient funds to the System to pay benefits when due. Prior to fiscal year 2012, HRS Section 88-122(b) provided for the Board of Trustees to adopt the assumptions to be used by the System, except the investment yield rate, which was set by the Legislature. Act 163, SLH 2011, set the investment yield rate at 7.75% for fiscal year 2011 but also amended HRS Section 88-122(b) to allow the Board of Trustees to establish, for subsequent fiscal years, all assumptions to be used by the System, including the investment yield rate assumption. The Board of Trustees periodically evaluates and revises the assumptions used by the System for actuarial valuations, including by commissioning experience studies to evaluate the actuarial assumptions to be used by the System. The current assumptions were adopted by the System's Board of Trustees based on the recommendations of the System's actuary in the most recent experience study, the 2019 Experience Study. These assumptions, funding changes and benefit structure are reflected in the 2019 Valuation Report. The impact of the new actuarial assumptions was an increase in the unfunded liabilities of the System of approximately $60 million in the 2019 Valuation Report.

Act 85, SLH 2017, requires the Employees' Retirement System to conduct an annual stress test of the system and to report the results of the test to the Legislature annually. The test is to project the effect of certain unfavorable scenarios on the system's assets, liabilities, funded ratio and other specified benchmarks. The ERS' annual stress test shows that ERS can withstand a -20% return in one year followed by 20 years with annual 5% returns (2 percentage points below the assumed rate) before returning to 7%, and will require only moderate rate increases to ensure that the funding period never extends beyond 30 years in any future annual valuation. Act 93, SLH 2017, requires the Employees' Retirement System Board of Trustees to conduct an actuarial experience study of assumptions used in the actuarial valuation of the system at least once every three years. Previous statutes required an experience study once every five years. The next experience study will be performed following the June 30, 2021 valuation.

The actual investment returns of the System for fiscal years 2010 through 2020 shown below consist of a mix of gross and net of fees.

Fiscal Year	Percentage
2010	11.96%
2011	21.25%
2012	-0.14%
2013	12.57%
2014	17.77%
2015	4.23%
2016	-0.78%
2017	13.68%
2018	7.85%
2019	6.00%
2020	1.26%*

Source: Report on Investment Activity for the ERS prepared by The Northern Trust Company (2010 to 2013), The Bank of New York Mellon (2014 to 2019) and reported in the ERS' CAFRs.
*Estimated

The first calendar quarter of 2020 stock market performance was the worst first quarter in history, while the second calendar quarter was one of the best second quarters. The System's Broad Growth Portfolio, which is exposed to U.S. growth and economic risk, lost 14% in the first calendar quarter (third fiscal quarter), but the Crisis Risk Offset Portfolio—designed to perform in periods of adverse market conditions, gained 10.9%. In the second calendar quarter, Broad Growth regained 6.2% and the entire System finished the fiscal year positive 1.3%. The Crisis Risk Offset Portfolio was able to redeploy performance gains back into the public equity markets to recapture some of the rally. The System maintained strong liquidity throughout the downturn and was not a forced seller of securities. The effects of the coronavirus negatively impacted institutional portfolios in their public markets portfolios in February and March, recovering in April through June. The impact to private markets, such as private real estate and private equity, demonstrated challenged performance towards the end of the fiscal year but will likely recover as global economies reopen.

The coronavirus emergency caused market volatility to increase and short-term returns to decline precipitously. Markets since have appreciably bounced back. The System's long-term view of expected returns has not changed. Operationally, the System continues to improve remote work capability through use of secure communications technology.

The State anticipates that as the percentage of employees hired on and after July 1, 2012 increases, and increases in the employer contribution rates required by Act 17, SLH 2017, impact the System, the State will be able to fully amortize the UAAL over a 30-year period. Assuming a constant employment base, the number of employees entitled to pre–2012 retirement benefits should equal the number of employees entitled to post–2012 retirement benefits in fiscal year 2023. The combination of the higher contribution policies and new benefit structure for future employees should enable the Retirement System to absorb the prior adverse experience and the revised actuarial assumptions over the 30-year term.

The following table sets forth the schedule of funding progress of the System for the ten most recent actuarial valuation dates.

SCHEDULE OF FUNDING PROGRESS
(Dollar amounts in millions)

June 30,	Actuarial Value of Assets (a)	Actuarial Accrued Liability (b)	Unfunded Actuarial Accrued Liability (b)-(a)	Funded Ratio (a)/(b)	Payroll (c)	UAAL as a Percentage of Payroll ((b)-(a))/(c)
2010	$11,345.6	$18,483.7	$7,138.1	61.4%	$3,895.7	183.2%
2011**	11,942.8	20,096.9	8,154.2	59.4%	3,916.0	208.2%
2012	12,242.5	20,683.4	8,440.9	59.2%	3,890.0	217.0%
2013	12,748.8	21,243.7	8,494.9	60.0%	3,906.7	217.4%
2014	13,641.8	22,220.1	8,578.3	61.4%	3,991.6	214.9%
2015***	14,463.7	23,238.4	8,774.7	62.2%	4,171.4	210.4%
2016****	14,998.7	27,439.2	12,440.5	54.7%	4,258.9	292.1%
2017	15,720.6	28,648.6	12,928.0	54.9%	4,265.0	303.1%
2018	16,512.7	29,917.4	13,404.7	55.2%	4,383.7	305.8%
2019*****	17,322.2	31,396.4	14,074.2	55.2%	4,519.7	311.4%

Source: 2019 ERS Valuation Report.
**Figures reflect assumption changes effective June 30, 2011.
***Reflects change in investment return assumption effective June 30, 2015.
****Reflects assumption changes effective June 30, 2016.
*****Reflects assumption changes effective June 30, 2019.

As of June 30, 2019, the UAAL of the System was $14.074 billion, an increase from the $13.405 billion as of June 30, 2018. The 2019 Valuation Report found that the UAAL will be fully amortized over a 26-year period. Assuming a constant employment base, the number of employees entitled to pre-2012 retirement benefits should equal the number of employees entitled to post-2012 retirement benefits in fiscal year 2023. The combination of the higher contribution policies and new benefit structure for future employees is expected to enable the System to absorb the prior adverse experience over the 26-year term.

As of June 30, 2019 and June 30, 2018, the Harbors Division reported a net pension liability of $35,113,859 and $34,412,958, respectively, or 0.51 percent, as its proportionate share of the State's net pension liability.

The total assets of the System on a market value basis available for benefits amounted to approximately $15.7 billion as of June 30, 2017, $16.6 billion as of June 30, 2018, $17.2 billion as of June 30, 2019 and $17.2 billion as of June 30, 2020. Actuarial certification of assets as of June 30, 2017 was $15.7 billion, as of June 30, 2018 was $16.5 billion, and as of June 30, 2019 was $17.3 billion.

The following table shows a comparison of the actuarial value of assets ("AVA") to the market values, the ratio of the AVA to market value and the funded ratio based on AVA compared to funded ratio based on market value assets:

ACTUARIAL VALUE OF ASSETS

June 30,	Actuarial Value of Assets (in millions)	Market Value of Assets (in millions)	Market Value as Percentage of AVA	Funded Ratio (AVA)	Funded Ratio (Market Value)
2010	$11,345.6	$9,821.6	86.6%	61.4%	53.2%
2011	11,942.8	11,642.3	97.5%	59.4%	57.9%
2012	12,242.5	11,285.9	92.2%	59.2%	54.6%
2013	12,748.8	12,357.8	96.9%	60.0%	58.2%
2014	13,641.8	14,203.0	104.1%	61.4%	63.9%
2015	14,463.7	14,505.5	100.3%	62.2%	62.4%
2016	14,998.7	14,070.0	93.8%	54.7%	51.3%
2017	15,720.6	15,698.3	99.9%	54.9%	54.8%
2018	16,512.7	16,598.4	100.5%	55.2%	55.5%
2019	17,322.2	17,227.0	99.5%	55.2%	54.9%

Source: The 2010-2019 ERS Valuation Reports

The following table shows the normal cost (which means the annual cost of providing retirement benefits for services performed by today's members) as a percentage of payroll, employee contribution rate and effective employer normal cost rate for the two groups of covered employees for fiscal years 2018 and 2019:

NORMAL COST

	June 30,					
	2018			2019		
	Police and Firefighters	Other Employees	All Employees	Police and Firefighters	Other Employees	All Employees
Normal cost as % of payroll	25.46%	12.38%	13.90%	26.55%	12.46%	14.13%
Employee contribution rate	12.49%	5.24%	6.08%	12.53%	5.39%	6.24%
Effective employer normal cost rate	12.97%	7.14%	7.82%	14.02%	7.07%	7.89%

Source: 2019 ERS Valuation Report.

The following table shows the actual contributions that have been contributed as of the last 10 valuation dates. Employer contribution rates are set prospectively by the statute.

SCHEDULE OF EMPLOYER CONTRIBUTIONS
(Dollar amounts in thousands)

June 30,	Actual Contribution
2010	$547,613
2011	534,858
2012	548,353
2013	581,447
2014	653,128
2015	717,793
2016	756,558
2017	781,244
2018	847,595
2019	922,635

Source: The 2014-2019 ERS Valuation Reports.

Asset Allocation

In August 2014, the Board of Trustees of ERS approved the adoption of a change in its asset allocation policy from the previous asset-class policy to a new risk-based asset allocation framework within the categories of Broad Growth, Principal Protection, Crisis Risk Offset, Real Return and Other. The new policy became effective as of October 1, 2014. The following table shows the target and actual asset allocation of the System as of December 31, 2019 under the revised asset allocation policy:

ASSET ALLOCATION
(as of December 31, 2019)

	Actual Allocation		Target Allocation		
Asset Type	**Amount ($mm)**	**Percentage**	**Amount ($mm)**	**Percentage***	**Allocation Difference**
Broad Growth	$12,259.7	73.7%	$12,228.0	68.0%	5.7%
Principal Protection	1,205.6	6.7%	1,438.6	8.0%	-1.3%
Crisis Risk Offset	2,548.3	14.25%	2,877.2	16.0%	-1.8%
Real Return	545.5	3.0%	1,438.6	8.0%	-5.0%
Opportunities	30.1	0.2%	0.0	0.0%	0.2%
Other	392.7	2.2%	0.0	0.0%	2.2%
Total	**$ 17,982.3**	**100.0%**	**$17,982.3**	**100.0%**	

Source: Valuations provided by BNY Mellon – December 31, 2019; values unaudited.

* Target Percentages are the 2019 Risk-Based Policy Targets. Numbers subject to changes and rounding errors.

Summary of Actuarial Certification Statement

The summary of the actuarial certification of the Employees' Retirement System as of June 30, 2018 and 2019 is set forth below:

TABLE 4
EMPLOYEES' RETIREMENT SYSTEM OF THE STATE OF HAWAII
Summary of Actuarial Certification as of June 30, 2018 and 2019
(Includes all counties)

ASSETS	2018	2019
Total current assets	$16,512,744,474	$17,322,194,107
Present value of future employee contributions	2,425,178,684	2,584,483,322
Present value of future employer normal cost contributions	2,664,690,218	2,757,121,992
Unfunded actuarial accrued liability	3,404,656,909	14,074,253,578
TOTAL ASSETS	$35,007,270,285	$36,738,052,999
LIABILITIES		
Present value of benefits to current pensioners and beneficiaries	$16,008,847,800	$16,871,118,207
Present value of future benefits to active employees and inactive members	$18,998,422,485	$19,866,934,792
TOTAL LIABILITIES	$35,007,270,285	$36,738,052,999

Source: Gabriel, Roeder, Smith & Company.

As of June 30, 2019, the unfunded actuarial accrued liability (under the entry age normal actuarial cost method) of the System amounted to approximately $14.074 billion. The System's funded ratios — assets divided by the actuarial accrued liability — remain unchanged during fiscal year 2019 as shown below:

FUNDED RATIOS

June 30, 2018	June 30, 2019
55.2%	55.2%

Other Post-Employment Benefits

The Governmental Accounting Standards Board ("GASB") has issued Statements No. 43 ("GASB 43"), Financial Reporting for Post-Employment Benefit Plans Other Than Pension Plans (*i.e.*, "OPEBs"), and No. 45 ("GASB 45"), Accounting and Financial Reporting by Employers for Post-Employment Benefits Other Than Pensions. GASB 43 was implemented by the Trust Fund for fiscal year ending June 30, 2007 and GASB 45 was implemented by the employers for fiscal year ending June 30, 2008 and for the County of Kauai for fiscal year ending June 30, 2009. The GASB has also issued Statement No. 74 ("GASB 74"), Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans and Statement No. 75 ("GASB 75"), Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions that are effective for fiscal years beginning July 1, 2016 and 2017, respectively. GASB 74 replaces GASB 43 and GASB Statement No. 57 OPEB Measurements by Agent Employers and Agent Multiple-Employer Plans ("GASB 57"), and GASB 75 replaces GASB 45 and GASB 57. The Trust Fund implemented GASB 74 and the State implemented GASB 75 for fiscal years beginning July 1, 2016 and July 1, 2017, respectively.

In 2013, the State enacted measures to significantly reduce the State's unfunded actuarial accrued liability for unfunded Other Post Employment Benefit ("OPEB"). As described below, the State is taking measures to prefund OPEB liabilities.

On July 9, 2012, Act 304, SLH 2012 was enacted to provide for the establishment of "a separate trust fund for the purpose of receiving employer contributions that will prefund other post-employment health and other benefit plan costs for retirees and their beneficiaries." Effective June 30, 2013, the Board approved the Plan and Trust Agreement for Hawaii Employer-Union Health Benefits Trust Fund for Other Post-Employment Benefits ("OPEB Trust") establishing the irrevocable trust whose assets are legally protected from creditors and can only be used for the benefit of participants' other post-employment benefits. The OPEB Trust is set up as an agent multiple-employer plan. Funds are pooled together but employer contributions; related investment income, investment expenses and gains/losses; and distributions are recorded separately by employer.

The State has received the Trust Fund July 1, 2019 Actuarial Valuation Report (the "Trust Fund Report") and the GASB Statement No. 75, Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions report (the "GASB 75 Report") prepared for fiscal year ending June 30, 2019 of the Trust Fund's OPEB liabilities. The Trust Fund and the GASB 75 Reports were prepared by the State's professional actuarial advisors, Gabriel Roeder Smith & Company. The Trust Fund Report quantifies the Actuarial Accrued Liabilities ("AAL") of the respective employers under GASB 75 and develops the Annual Required Contributions ("ARC"). The GASB 75 Report complements the Trust Fund Report and the calculation of the OPEB Trust liability for this report is not applicable for funding purposes of the OPEB Trust.

The Trust Fund Report provides, based on stated actuarial assumptions, costs with prefunding of the ARC and a discount rate of 7%. The Trust Fund Report states that the State's unfunded AAL as of July 1, 2019 is $9,553.5 million. The corresponding ARC for the fiscal years ending June 30, 2020 and 2021 are $814.7 million and $842.5 million, respectively, of which 77% is an expense of the General Fund and 23% is to be paid from non-general funds of the State. The Trust Fund Report estimates the "pay-as-you-go" funding amounts for fiscal years ending June 30, 2020 and 2021 are $409.2 million and $454.0 million, respectively.

In the past, the State funded its OPEB costs on a "pay-as-you-go" basis; however, the State began the process of pre-funding its OPEB costs with contributions in the amount of $100 million for fiscal year ending June 30, 2014. The State has met its pre-funding OPEB contribution in accordance with Act 268, SLH 2013 for the fiscal years ending June 30, 2015, 2016, 2017, 2018 and 2019 with actual contributions of $117.4 million (versus the $83.0 million Act 268, SLH 2013 required 2015 contribution), $249.8 million (versus the $163.6 million Act 268, SLH 2013 required 2016 contribution), $333.0 million (versus the $230.2 million Act 268, SLH 2013 required 2017 contribution) and $337.1 million (versus the $297.063 million Act 268, SLH 2013 required 2018 contribution), and $787.1 million (the Act 268, SLH 2013 required 2019 contribution), respectively. The market value of the State's OPEB assets amounted to $1.8 billion as of June 30, 2019. This valuation results in a funded ratio of 16.1% based on the State's AAL as of July 1, 2019, or $11.4 million. Investment return net of fees on OPEB assets during fiscal year 2020 is estimated to be 1.7% versus the assumed 7%. If this trend continues through the balance of the fiscal year, it would result in an actuarial loss that will negatively affect funded ratios. However, as described below, pre-funding has been temporarily suspended to deal with the COVID-19 emergency.

Act 93, SLH 2017, requires the EUTF Board of Trustees to conduct an annual actuarial valuation of the Trust Fund. The previous practice was to have an actuarial valuation completed every two years. Act 93 also requires the EUTF Board to update all assumptions specific to the Trust Fund used in the valuation at least once every three years.

Hawaii EUTF Contributions
Fiscal Years 2014 — 2022

Fiscal Year	ARC	Benefit Payment*	UAAL Prefunding Balance	Act 268 Prefunding Requirement %	Act 268 Prefunding Requirement $	Total Prefunding Contribution**	Total Requirement
2014	$692,622,000	$281,584,000	$411,038,000	N/A	N/A	$100,000,000	$ N/A
2015	717,689,000	302,738,000	414,951,000	20%	$82,990,000	117,400,000	N/A
2016	742,808,000	333,770,000	409,038,000	40%	163,615,000	249,827,434	N/A
2017	744,248,000	360,606,000	383,642,000	60%	230,185,000	333,049,894	N/A
2018	770,297,000	357,026,000	413,271,000	80%	297,063,000	337,129,000	N/A
2019	787,110,000	373,349,000	413,761,000	100%	787,110,000	787,110,000	787,110,000
2020**	814,659,000	409,165,000	405,494,000	100%	814,659,000	814,659,000	814,659,000
2021**	842,456,000	454,027,000	388,429,000	100%	842,456,000	842,456,000	842,456,000
2022**	877,193,000	495,481,000	381,712,000	100%	877,193,000	877,193,000	877,193,000

*Gabriel Roeder Smith & Company projections

**Fiscal years 2014, 2015, 2016, 2017, 2018 and 2019 are actual, and 2020, 2021, and 2022 are projected based on the 2019 Trust Fund Report and included in the State's General Fund Financial Plan. Effective fiscal year 2019, Act 268 requires 100% ARC payment.

If the State public employer contributions into the fund are less than the amount of the annual required contribution commencing with the fiscal year 2018-2019, general excise tax revenues will be used to supplement State public employer contribution amounts. If the county public employer contributions into the fund are less than the amount of the annual required contribution commencing with the fiscal year 2018-2019, transient accommodations tax revenues apportioned to the counties will be used to supplement county public employer contribution amounts.

The Harbors Division's share of the State's OPEB costs for fiscal years 2017, 2018 and 2019 were approximately 1,944,000, $2,507,000 and $3,084,000, respectively, representing 57.2%, 100% and 100%, respectively, of the required contribution.

The State will be temporarily suspending the Act 268 UAAL prefunding balance payments for all public employers starting in fiscal year 2021 in order to help address budget shortfalls resulting from the impacts of the COVID-19 pandemic. Future fiscal years' suspensions will be through legislation proposed during the 2021 session. The duration of the suspensions is currently planned for the period from fiscal years 2021 through fiscal year 2025 but this is subject to change. This planned suspension currently is not expected to affect the funding of the State's Employees' Retirement System as described above.

THE HARBOR SYSTEM

General

The Harbor System is comprised of ten commercial harbors, which are operated and maintained by the Department as a single integrated system for financial and management purposes. The Harbor System is an Enterprise Fund of the State and is self-supporting, thus, it is authorized to impose and to collect rates and charges for the use of the facilities and properties of the Harbor System enabling it to pay its operating expenses and to pay its bond debt service. The State manages, maintains and operates the Harbor System to provide for the efficient movement of cargo and passengers. Harbor System facilities are located on the six major islands of the State's four (4) counties indicated as follows: (1) Honolulu Harbor and Kalaeloa Barbers Point Harbor, of the City and County of Honolulu on the island of Oahu, comprising the Oahu Harbor District; (2) Hilo Harbor and Kawaihae Harbor, of the County of Hawaii, on the island of Hawaii, comprising the Hawaii Harbor District; (3) Nawiliwili Harbor and

Port Allen Harbor, of the County of Kauai, on the island of Kauai, comprising the Kauai Harbor District; and (4) Kahului Harbor and Hana Harbor on the island of Maui, Kaunakakai Harbor on the island of Molokai, and Kaumalapau Harbor on the island of Lanai, all located in the County of Maui, comprising the Maui Harbor District. The locations of the harbors comprising the Harbor System are shown on the map of Principal Commercial Harbors of Hawaii on the inside front cover page of this Official Statement.

Table 5 shows the percentage breakdown of operating revenues by Harbor District for the fiscal year ended June 30, 2019.

TABLE 5
BREAKDOWN OF OPERATING REVENUES BY DISTRICT
Fiscal Year Ended June 30, 2019

District	Percentage
Oahu (Honolulu and Kalaeloa Barbers Point)	78%
Hawaii (Hilo and Kawaihae)	9%
Maui (Kahului, Kaunakakai, Kaumalapau and Hana)	8%
Kauai (Nawiliwili and Port Allen)	5%
Total:	100%

Source: State of Hawaii Harbors Division.

There are a number of State-owned, shallow-draft, small boat harbors and boat launching ramps throughout the State which are utilized primarily for recreational purposes. These harbors, which are under the administrative jurisdiction of the State Department of Land and Natural Resources, are not part of the Harbor System and were not financed with Bonds.

Summary of Harbor System Operations

General. The Department operates the Harbor System as a landlord port. The Harbor System controls, manages, and maintains all piers, wharves, cargo sheds (not under a permit or lease), container yards and other back-up facilities as common areas, which are used by the shipping companies and terminal operators for their operations on a nonexclusive basis. These facilities are not exclusive and the Harbor System controls and manages its cargo lands by allocating cargo space based on cargo demands and usage. Terminal operators provide the equipment, hire longshoremen and other employees to provide stevedoring, cargo handling, security and other services in common areas. The shipping companies and terminal operators are responsible for the maintenance of the leased premises and cargo handling equipment pursuant to the terms and conditions of the lease.

The Department leases land and building space through direct negotiations when issuing revocable permits or long-term leases for maritime-time related purpose or activities as defined by HRS 171-59(b). Leases of land and building space to maritime-time related purpose or activities are granted through public auction pursuant to HRS §171-59(a). The Department conducts direct negotiations with shipping companies, terminal operators and other entities with maritime related activities or purposes.

The Department estimates that approximately 19% of the land (excluding submerged land and easements) and improvements comprising the Harbor System on Oahu is leased or held for lease under revocable permits or leases. Revocable permits generally are granted where the use of the leased property is subject to change. Revocable permits are issued on a month-to-month basis and can be terminated by either party by providing one month's advance notice. Rents for revocable permits are determined every three years with annual escalating rates set by real estate appraisal, for example 2.5% for Honolulu Harbor, 2.6% for Kalaeloa Barbers Point Harbor, and 3.0% per annum for neighbor island ports.

Leases generally are for a long-term period where the tenant intends to make improvements to the premises. Leases typically have terms of thirty-five years or more, although a few short-term leases of five years have been issued. All leases and lease reopeners rents are determined by real estate appraisal with leases executed at an 8% return of fair market rents. The State Board of Land and Natural Resources must approve all leases and revocable permits. Chapter 434, HRS mandates the Department to conduct an environmental assessment and publicly post its determination with the State Office of Environmental Quality Control prior to disposing of land through leases.

The Department derives revenues from the rentals under revocable permits and leases. With respect to the land and improvements comprising the Harbor System that are not under a lease or revocable permit, the Department derives revenues only from tariffs assessed on shipping and charges for other services provided by the Harbor System. See "SOURCES OF REVENUES."

The terminal operators are allocated cargo space for their use at the commercial ports. Terminal operators provide the equipment, hire longshoremen and other employees to provide stevedoring, cargo handling, security and other services in common areas. Labor contracts between the terminal operators and the International Longshoremen's and Warehousemen's Union will expire on July 1, 2022.

To ensure that commercial waterways are kept operational, the Harbors Division and the United States Army Corps of Engineers ("USACE") have a partnership to monitor the depths of the ports comprising the Harbor System on a periodic basis and to provide timely maintenance dredging. USACE maintains the design depths for the Federally-authorized entrance channels, access channels and turning basins by performing routine maintenance dredging activities. The Harbors Division maintains the design depths along its berths by conducting maintenance dredging activities on an as-needed basis. In 2016, USACE dredged Honolulu Harbor, Kalaeloa Barbers Point Harbor, Kahului Harbor, Nawiliwili Harbor and Hilo Harbor. In 2020-2021, USACE will complete a second phase of dredging for the Honolulu Harbor and dredging of the Port Allen Harbor.

Each harbor has facilities for the loading, unloading, handling and storage of containerized cargo (containers), bulk and other cargo, and some harbors provide passenger facilities. Honolulu Harbor can accommodate vessels with lengths greater than 1,000 feet. All harbors except Port Allen Harbor have facilities to support container operations, and most of the five major harbors provide passenger facilities for vessels less than 1,000 feet. The major types of bulk cargo shipped through the Harbor System include cement, coal, aggregates, refined petroleum products and liquified petroleum gas (also known as propane) and other miscellaneous products. Nearly all non-bulk cargo is shipped through the Harbor System in containers.

There are approximately twenty-five principal shipping agents providing service to the State. Table 6 lists the ten largest contributors of wharfage revenues to the Department. Matson Navigation Company, Inc. ("Matson"), Pasha Hawaii Transport Lines LLC ("Pasha"), and Young Brothers, LLC ("Young Brothers") are the major cargo operators serving the Harbor System, accounting for almost 82% of the wharfage revenues of the system.

Matson operates nine large container ships between Honolulu Harbor and the west coast of the United States, with seven ships arriving at Honolulu Harbor every fourteen days. One ship each week proceeds to Guam, Japan and China after calling on Honolulu. Matson Terminals, Inc. ("Matson Terminals"), a wholly-owned subsidiary of Matson, provides container stevedoring, container equipment maintenance and other terminal services for Matson and other ocean carriers. Matson Terminals utilizes six gantry cranes for its operations. During 2019, Matson Terminals replaced three gantry cranes with newer more efficient cranes, to serve its newer Aloha and Kanaloa class vessels on Sand Island at Piers 51-53 of Honolulu Harbor and facilities for transshipment services to Kahului, Nawiliwili, and Kawaihae harbors. Matson also acquired a higher TEU capacity barge resulting in the consolidation of its Hawaii island cargo operations to Kawaihae Harbor and discontinued its Hilo voyage without change in cargo volumes to Hawaii island.

Pasha operates six container ships between Honolulu Harbor and the west coast of the United States with ships arriving at Honolulu Harbor three times per week. Pasha has three gantry cranes and a back-up area on Sand Island and maintains offices at several other harbors. Pasha is also investing in its fleet with the construction of two new 'Ohana class vessels to operate fully on Liquefied Natural Gas ("LNG") from day one in service, substantially improving the vessels' environmental footprint. The company intends that energy savings will be achieved with a state-of-the-art engine, hull, and propulsion system. The two LNG fueled containerships currently being built at Brownsville, TX-based Keppel AmFELS will join Pasha Hawaii's fleet, serving the State/United States Mainland trade lane with delivery of the 'Ohana Class vessels expected during 2020.

Young Brothers is a regularly scheduled common carrier for over water transport of cargo by barge between the islands of Oahu, Hawaii, Kauai, Maui, Molokai and Lanai, and has been providing services in the State since 1900. Young Brothers operates eight barges and five tugs, providing 14 scheduled weekly departures from Honolulu to the ports of Hilo and Kawaihae on Hawaii Island, Kahului on Maui Island, Kaunakakai on Molokai Island, Nawiliwili on Kauai Island and Kaumalapau on Lanai Island. Young Brothers also upgraded its fleet of tugs with four custom built tugs, two tugs being delivered in 2018 and the other two in 2019, representing an investment of $80 million to serve the State.

Young Brothers operates under a Certificate of Public Convenience and Necessity and is authorized by the State of Hawaii Public Utilities Commission to perform statewide carriage of property by water. The Public Utilities Commission regulates its tariffs and operations. During August 2020, the Public Utilities Commission approved Young Brother's emergency request to increase rates by 46% with conditions to resume the full pre-COVID-19 sailing schedule by September 1, 2020, which will restore an additional sailing from the ports of Hilo and Kahului to Honolulu.

Table 6 shows the top 10 shipping agencies for the fiscal year ended June 30, 2019.

TABLE 6
TOP TEN SHIPPING AGENCIES
Fiscal Year Ending June 30, 2019

	Shipping Agent	**Wharfage Revenues (000's)**	**As a Percentage of Total Wharfage Revenues**
1.	Matson Navigation Company, Inc.	$ 66,829	42.37%
2.	Pasha Hawaii Transport Lines, LLC	31,147	19.75
3.	Young Brothers, LLC	30,528	19.35
4.	Transmarine Navigation Corporation	6,019	3.82
5.	NCL America	4,832	3.06
6.	Inchcape Shipping Services	4,364	2.77
7.	Sause Bros., Inc	3,407	2.16
8.	Waldron Norton Lilly International, LLC	3,163	2.01
9.	Par Hawaii Refining LLC	2,737	1.73
10.	Alaska Marine Cargo	2,200	1.39
	Total:	S155,226	98.41%

Above figures reflect Wharfage Revenues on accrual basis.

Wharfage Revenues include Wharfage, Passenger Fees, Pipeline and Bunkering.

Table 7 presents historical data for cargo traffic in the Harbor System (by type of cargo) for the fiscal years ended June 30, 2016 through June 30, 2020. Because different wharfage rates are imposed for different types of cargo, trends in certain types of cargo traffic may have more significant impacts on total revenues than trends in other types of cargo.

TABLE 7
ANNUAL TRENDS IN CARGO TRAFFIC FOR HAWAII HARBORS

Fiscal Year Ended June 30	CARGO VOLUME – UNITS (000's)					CARGO VOLUME-TONS (000's)					REVENUES – DOLLARS (000's)				
	2016	2017	2018	2019	Unaudited 2020	2016	2017	2018	2019	Unaudited 2020	2016	2017	2018	2019	Unaudited 2020
WHARFAGE:															
Containers [1]	1,511	1,517	1,590	1,591	1,544	11,173	10,973	11,206	11,181	10,720	$70,276	$76,801	$96,216	$113,883	$109,155
Autos and Trucks	307	265	275	279	210	460	398	413	418	315	8,565	8,132	10,058	12,198	8,713
General Merchandise and Bulk Items [2]	4,589	4,439	3,956	4,061	3,679	4,589	4,439	3,956	4,062	3,679	9,886	10,450	11,843	14,619	13,174
Pipelines [3]	31,279	31,263	29,455	36,326	32,989	4,979	4,946	4,649	5,703	5,215	3,910	4,442	5,002	7,366	6,888
Other [4]	66	53	65	67	67	110	88	109	111	96	391	354	521	630	562
Passengers	1,006	1,086	1,082	1,167	813						7,043	8,143	8,164	9,046	6,298

(1) *Containers are expressed in twenty-foot equivalent units (TEUs) and include empty containers, loaded containers and autos and trucks in containers. Surcharge units for in-bound and out-bound foreign cargo is not included.*

(2) *Items are expressed in tons and include cement, molasses, sugar, explosives, lumber, scrap metal, vehicles, trucks and trailers. NOTE: Shipments of sugar ceased during FY2017 and shipments of molasses ceased during FY2018 as the last Hawaii sugar plantation ceased operations in December 2016.*

(3) *Petroleum and chemical products are expressed in barrels. Cement and molasses are measured in tons, and therefore are reported as "General merchandise and Bulk Items." Pipeline water is excluded from above data.*

(4) *Individual units are used for livestock and crates. Lumber is measured by foot.*

Notes: The above information is presented for illustrative purposes only.

Fiscal Year 2020 data is preliminary and estimated.

Source: State of Hawaii Harbors Division.

Table 8 presents historical data for cargo traffic (in tonnage) for the different State harbors for the fiscal years ended June 30, 2016 through June 30, 2020. Because charges imposed by the Harbors Division are based primarily on units as opposed to tonnage, historical trends in tonnage do not necessarily correlate with trends in total revenues.

TABLE 8
ANNUAL TRENDS IN CARGO VOLUME FOR HAWAII HARBORS
SHORT TONS (000's)
Fiscal Year 2016 – Fiscal Year 2020

Fiscal	Oahu		Maui	Hawaii		Kauai		Molokai	Lanai	
Year Ended June 30	Honolulu	Kalaeloa Barbers Point	Kahului	Hilo	Kawaihae	Nawiliwili	Port Allen	Kaunakakai	Kaumalapau	Total
2016	11,437	3,876	2,499	1,308	1,062	820	123	86	98	21,309
2017	11,087	3,727	2,503	1,376	1,027	837	109	82	96	20,844
2018	11,064	3,494	2,231	1,359	977	913	120	71	103	20,332
2019	11,529	3,946	2,315	1,414	990	941	117	76	147	21,475
2020	10,611	3,764	2,166	1,269	998	786	131	76	224	20,025

Notes: Kaumalapau Harbor tariff start date: March 1, 2010.
Fiscal Year 2020 data is preliminary and estimated.
Source: State of Hawaii Harbors Division.

Table 9 presents historical data for cargo traffic in the Harbor System (by destination) for the fiscal years ended June 30, 2016 through June 30, 2020.

TABLE 9
CARGO STATISTICS BY DESTINATION
INBOUND/OUTBOUND CARGO TRENDS
SHORT TONS (000's)
Fiscal Year 2016 – Fiscal Year 2020

	2016		2017		2018		2019		2020 (unaudited)	
	Amount	%	Amount	%	Amount	%	Amount	%	Amount	%
INBOUND										
Domestic	5,841	41.8	5,570	40.9	5,422	40.3	5,409	38.0	5,119	38.9
Foreign	2,580	18.5	2,523	18.5	2,499	18.6	3,053	21.5	2,656	20.2
Inter-island	5,551	39.7	5,541	40.6	5,535	41.1	5,767	40.5	5,389	40.9
Total Inbound	**13,972**	**100.0**	**13,634**	**100.0**	**13,456**	**100.0**	**14,229**	**100.0**	**13,164**	**100.0**
OUTBOUND										
Domestic	1,044	14.5	1,199	16.9	1,031	15.3	924	13.1	829	12.3
Foreign	981	13.6	883	12.5	773	11.4	937	13.2	810	12.1
Inter-island	5,180	71.9	4,999	70.6	4,948	73.3	5,209	73.7	5,070	75.6
Total Outbound	**7,205**	**100.0**	**7,081**	**100.0**	**6,752**	**100.0**	**7,070**	**100.0**	**6,709**	**100.0**
TOTAL	**21,177**		**20,715**		**20,208**		**21,299**		**19,873**	

Note: Fiscal Year 2020 data is preliminary and estimated, above data excludes tonnage resulting from bunkering, or fueling activities. For instance, in fiscal year 2020 the difference between total tonnage of 20,025,000 tons and total tonnage of inbound and outbound cargo of 19,873,000 tons is 152,000 tons resulting from Bunkering activities.

Source: State of Hawaii Harbors Division.

Table 10 shows the number of overseas and inter-island ship calls recorded in the Harbor System for fiscal years ended June 30, 2016 through June 30, 2020 for which port entry fees are assessed. These figures include arrivals by container, bulk and other cargo ships, passenger ships and tugs and barges, but exclude calls to privately operated facilities.

TABLE 10
ANNUAL TRENDS IN SHIP CALLS

FISCAL YEAR ENDED JUNE 30	COUNT
2016	11,037
2017	11,006
2018	10,892
2019	11,240
2020	10,758

Source: State of Hawaii Harbors Division.

The facilities and operations of each commercial harbor comprising the Harbor System are described in greater detail below.

Honolulu Harbor. Honolulu Harbor, the port-of-entry for the Harbor System, has over 40 berths, over 6 linear miles of cargo handling pier and over 210 acres of cargo handling area, a significant portion of which is yard area. Honolulu Harbor is located on the southern (or leeward) coast of Oahu in the State's capital city. Honolulu Harbor sole entrance is the Main Channel, which has a depth of 45 feet. Honolulu Harbor has two turning basins, the Main Harbor Basin and the Kapalama Basin, both of which are dredged to a depth of 40 feet. Piers 1 through 42 have direct access to Nimitz Highway/Ala Moana Boulevard, the principal roadway bordering the northern side of the harbor. Pier 2 serves as the primary passenger terminal for passenger turn around operations. Piers 10 and 11 at Aloha Tower also serve passenger ships, primarily servicing one-day visits. The Sand Island Container Terminal at Piers 51 through 53 is the State's principal hub for the distribution of containers shipped to the State. This Terminal connects to Nimitz Highway by a four-lane roadway, including two bridges over the Kalihi Channel. The Fort Armstrong Terminal at Piers 1 and 2 and the Interisland Terminal at Piers 39 and 40 comprise the other major cargo facilities in Honolulu Harbor. See the Inside Rear cover for a map of Honolulu Harbor.

The State owns most of the land and waterfront facilities within Honolulu Harbor. Some facilities are owned by the U.S. government including the U.S. Coast Guard stations at Pier 4 and their base located to the east of Pier 53, Sand Island, while others are privately-owned, including Island Energy Services' petroleum transfer and storage facilities at Pier 30. Table 11 indicates the principal characteristics of the available piers in Honolulu Harbor, as well as the types of cargo, shipping and other uses of the pier facilities, as of June 2020.

TABLE 11
PRINCIPAL CHARACTERISTICS OF AVAILABLE PIERS
HONOLULU HARBOR

PIER	BERTH LENGTH (feet)	YARD AREA (acres)	SHED AREA (sq. ft)	PRINCIPAL CARGO OR PIER USE (1)
1	1,175	22.7	---	Foreign Containers
2	1,850	4.9	169,355	Cruise Ship Terminal and Neo-Bulk Cargo
4	---	---	---	Owned and Used by U.S. Coast Guard
5	200	---	---	Small Passenger Vessels
6	163	---	---	Small Passenger Vessels and Vehicle Parking
7	710	---	---	Falls of Clyde and Hawaii Maritime Center
8	602	---	---	Small Passenger Vessels and Retail Space
9	629	---	---	Lay Berths and Retail Space
10	502	---	---	Cruise Ship Terminal and Vehicle Parking
11	472	---	---	Cruise Ship Terminal and Harbors Division Administrative Office
12	---	---	---	Small commercial Boats and Vehicle Parking
13	345	---	13,824	Tugboats, Office Space and Vehicle Parking
14 and 14 End	430	---	13,825	Tugboats, Office Space and Vehicle Parking
15	250	0.4	5,498	Oil Spill Response Vessel
16	930	---	---	Commercial Fishing Boats
17	971	---	---	Commercial Fishing Boats
18	214	---	---	Pilot Boats, Loading Dock, Ferry Terminal
19	530	0.3	87,845	Tugboats, Barges, Cruise Ships, Ferry Terminal, RO/RO General Cargo and Storage Shed
20	480	3.0	---	Ferry Vehicle Staging Area
21	494	0.4	---	Tugboats, Barges and General Cargo
22	446	0.8	---	Tugboats, Barges and Office Space
23	500	2.9	---	Dry-Docks and Ship Repair Facility
24	558	3.4	---	Drydock Operations
25	365	0.5	---	Drydock Operations
26	685	3.9	---	Maintenance facility for submarines, Tugboats and Small drydock
27	875	2.4	---	Maintenance workboats, Tugboats, Small Drydock, and Barges
28	722	0.9	---	Maintenance workboats, Tugboats and Barges
29	801	7.8	---	Tugboats, Barges and General Cargo
30	270	---	---	Privately Owned Petroleum Facility
31	775	0.2	74,130	RO/RO, Tugboats, Barges and Storage
32	400	3.3	99,400	RO/RO and General Cargos, Bunker Fuel (3) and Pipelines
33	325	4.1	67,228	RO/RO and General Cargos, Bunker Fuel and Pipelines
34 (Portion)	545	2.0	---	RO/RO and General Cargos
34 (Portion) and 35	705	1.9	---	Used by the University of Hawaii School of Oceanography, Engineering Science and Technology, Oceanographic Research Facility and its Research Vessels
36	946	---	32,400	Commercial Fishing Boats
37	408	---	---	Commercial Fishing Boats
38	587	---	---	Commercial Fishing Boats and Fish Auction
38 End	---	---	---	Liquid-Bulk Cargo
39 and 39 End	2,722	18.4	---	Barges and Tugboats, Break-Bulk and Container Cargos and RO/RO
40 and 40 End	2,430	12.3	---	Barges and Tugboats, Break-Bulk and Container Cargos and RO/RO
41	900	---	---	To Be Constructed, portion of Kapalama Container Terminal Facility
42	510	---	---	To Be Constructed, portion of Kapalama Container Terminal Facility
44 and 45	670	---	---	To Be Constructed, portion of Kapalama Container Terminal Facility
51A	680	26.3	---	Domestic Containers, Autos and Petroleum
51B	556	31.1	---	Domestic Containers
51C	677	11.9	---	Domestic Containers
52	800	31.5	50,300	Domestic Containers
53	1,160	37.4	51,481	Domestic Containers

(1) *All cargo handling equipment for loading and moving cargo to, from and around the piers and ships is owned by the shipping and stevedoring companies.*

(2) *RO/RO = roll on/roll off.*

(3) "*Bunker" is related to the fueling operation for ships.*

Source: State of Hawaii Harbors Division.

Kalaeloa Barbers Point Harbor. Kalaeloa Barbers Point Harbor is located at Kalaeloa, which is approximately 20 miles west of downtown Honolulu, adjacent to the privately-owned Campbell Industrial Park. This harbor was constructed to provide port facilities to serve Kapolei, the industrial and commercial development on the Ewa Plain west of Honolulu, which is presently being developed as Oahu's "New/Second City."

The harbor's entrance channel is 42 feet deep, and the basin is 38 feet deep. The harbor facilities include a 2,700-linear feet concrete pier with a 37.8-acre paved back-up area, a 255-foot barge pier with a 4.4-acre back-up yard, a 45,000 square-foot transit shed, and a 150-foot service vessel pier. The harbor's primary operations include the transshipment of petroleum products, bulk cargo handling, a contractor's base yard operations and ship repair. A bulk unloader, coal conveyor, cement storage facility, and an asphalt production plant each of which is privately owned, are in operation.

Ninety percent of the cargo that is shipped through the Kalaeloa area flows through the privately operated off-shore mooring and fuel shipment facilities near the Kalaeloa Barbers Point Harbor. This cargo consists primarily of crude oil products shipped into refineries and the resulting refined fuel shipped to neighbor island ports and to out of the State locations. The Department does not receive any revenues in connection with cargo that is shipped through the privately-operated off-shore mooring and fuel shipment facilities.

Lynden Transport's Alaska Marine Lines (dba Aloha Marine Lines in the State or AML) expanded its fleet with the purchase of two cargo barges, the Kamakani and Namakani, from Oregon-based Sause Bros. Sause terminated its Hawaii service in March 2020 and Alaska Marine Lines is now providing service to Sause Bros.' former customers. In addition, Aloha Marine Lines moved from Pier 29 in Honolulu to serve former Sause Bros. customers from Pier 5 at Kalaeloa Barber's Point Harbor. AML's relocation to Kalaeloa Barber's Point Harbor offers convenience to its customers in the industrial park area of Kapolei and cost-effective cargo service using 53-foot containers. The Seattle-based Alaska Marine Lines/Aloha Marine Lines provides bi-weekly service to the State.

Hilo Harbor. Hilo Harbor is located on the northeast coast of the island of Hawaii, the largest island in the State, at the commercial center of the island. Hilo Harbor provides four piers totaling 3,207 linear feet of berthing space and 23.7 acres of cargo yard with the recent addition of a fourth pier 4 with 602 linear feet. Depth is 33 feet to 35 feet. The four piers primarily handle container and general cargo, petroleum products, lumber, cement, livestock and liquefied petroleum gas. Pier 1 has 1,265 feet of berthing space, 81,635 square feet of shed space, a passenger terminal and a back-up area for container storage. Matson loads and unloads containers from its inter-island barges at Pier 1. Pier 1 also accommodates cruise ships. Pier 2 has 703 feet of berthing space and 37,884 square feet of shed space; this shed space area will be modified to provide space for inter-island Roll-On/Roll-Off cargo and chassis storage. Biodiesel fuel will be offloaded at Pier 2 in the near future. Pier 3 is used for trans-shipment of petroleum products, general cargo and occasionally for small passenger ships. Construction to expand the inter-island barge terminal by dredging a new entrance basin for a reinforced concrete Pier 4 and constructing the adjacent cargo area to accommodate inter-island cargo operations was completed during December 2017. The Harbors Division placed Pier 4 into service in January 2018 for Young Brothers' inter-island barge operations.

Matson consolidated its regularly scheduled tug and barge service to the island of Hawaii to Kawaihae Harbor on May 6, 2020. Hilo Harbor continues to serve as Matson's sales and logistics base for the receipt of cargo drayed between Hilo and Kawaihae Harbor.

Kawaihae Harbor. Kawaihae Harbor is located on the northwest coast of the island of Hawaii. Kawaihae Harbor provides two piers of 1,562 linear feet of concrete berthing space. The vessel depth of the harbor is 20 to 35 feet. Barges can operate with a depth of 20 to 24 feet. Kawaihae Harbor's facilities include 8,300 square feet of cargo shed and 35.2 acres of cargo space. The types of cargo that are primarily handled at Kawaihae Harbor are container and general cargo, bulk cement, lumber, steel, produce, petroleum products, bulk fertilizer, livestock, grain and lava cinders. Privately-owned petroleum products pipelines are available. Both Matson and Young Brothers provide regularly scheduled tug and barge service. Pier 1 also supports a boutique passenger operation.

With increased cargo activity as a result of Matson consolidating its regularly scheduled tug and barge service to the island of Hawaii to Kawaihae Harbor on May 5, 2020, the Harbors Division initiated improvement to the terminal and roadways designs to address cargo being drayed between Hilo and Kawaihae Harbor as provided for in Act 200, SLH 2008.

Nawiliwili Harbor. Nawiliwili Harbor is located near Lihue on the southeast coast of the island of Kauai. The harbor has three piers totaling 1,860 linear feet of berthing space and 39.7 acres of cargo yard space. Matson uses Pier 1 and the adjacent nine-acre container yard for inter-island barge cargo traffic. Pier 2 is used for berthing cruise ships and for handling petroleum products. Pier 2 has a total of 39,950 square feet of cargo shed space and also contains a passenger terminal. Nawiliwili Harbor's support facilities include ten pipelines for petroleum products and cement. Young Brothers uses the facility at Pier 3, which includes a 625-foot pier, a 150-foot roll-on roll-off ("Ro-Ro") pier and a 16.6-acre container yard. The covered cargo shed currently located in the middle of the container yard is being removed to increase efficiency in the container handling, movement onto and off the barge and container yard layout for container pickup and deliveries. Pier 3 is also used to berth smaller cruise ships. The facilities were designed both to accommodate existing demand and growth in such demand.

Port Allen Harbor. Port Allen Harbor is located on the southern coast of Kauai. Port Allen has two piers, 1,200 feet of berthing space and a cargo shed of 34,792 square feet, and is 35 feet deep. Petroleum products constitute the principal cargo handled at Port Allen Harbor, for which pipelines are available. The United States Navy leases one half of the cargo shed and one of the piers for its operations. When not in use for fuel barge operations, the commercial piers and a portion of the shed are also used by excursion vessels.

Kahului Harbor. Kahului Harbor is the only commercial harbor on the island of Maui, and is located along the northern shore of the island near its commercial center. Kahului Harbor has three piers and a total berthing space of 3,052 linear feet and 33.5 acres for container operations, and is 35 feet deep. Pier 1 has 43,925 square feet of cargo shed and passenger terminal space; Pier 1 provides 15.9 acres for containerized cargo, receives petroleum products, and is also utilized by cruise ships. Pier 2A, along with portions of the back-up area totaling 17.6 acres of open storage area, is used by Young Brothers for inter-island barge cargo traffic. Pier 3 is a Ro-Ro facility for inter-island cargo and also provides one berth for sand barges and fuel barges. Kahului Harbor has privately-owned cement and petroleum product pipelines.

Act 200 included plans to improve West Kahului Harbor, which is not being pursued in favor of acquiring lands adjacent to existing harbor piers and roadway infrastructure. To accommodate anticipated growth in container cargo operations, the Harbors Division has completed its environmental planning and assessments and is preparing to acquire approximately 10 acres of land adjacent to Kahului Harbor. In addition, with the last sugar plantation closing during 2017, the Department is initiating plans to acquire additional lands adjacent to the existing harbor infrastructure to secure future cargo capacity for the island of Maui.

Kaunakakai Harbor. Kaunakakai Harbor is located on the south central coast of the island of Molokai, near the population center of the island. Kaunakakai Harbor's basin has a depth of 23 feet. Kaunakakai Harbor has one 689-foot barge pier, 7,900 square feet of cargo shed space and 2.9 acres for open cargo storage. Kaunakakai Harbor has a privately-operated fuel transfer pipeline and a privately-owned inter-island ferry service that operates between Maui (Lahaina Small Boat Harbor) and Molokai.

Kaumalapau Harbor. Kaumalapau Harbor is the only commercial harbor on the island of Lanai. The Department acquired the harbor from Lanai Company Inc., a subsidiary of Castle & Cooke, Inc. The harbor is used primarily for inter-island cargo and fuel transfer operations.

Hana Harbor. Hana Harbor is located along the eastern shore of the island of Maui. Presently, the pier is condemned, and is not used to accommodate inter island cargo. A planning study has been completed and discussion regarding the commercial feasibility of reconstructing the pier is ongoing with the community.

Capital Improvements Program

The current Capital Improvements Program for the Harbors Division covers the six-year period from fiscal year 2020 through fiscal year 2025. The State Legislature authorizes capital improvement projects and provides appropriation funding as part of a biennium capital budget submitted for their review in every odd numbered year. In every even numbered year, the State Legislature considers additional requests for the second year of the biennium period as part of the supplemental budget appropriation process.

The Legislature can appropriate funds for Harbor System capital improvement projects from three sources: Bonds, federal funds and the Harbor Special Fund. The appropriation of bond funds for a capital improvement project serves as the legislative authorization to issue Bonds when required in the future. If bond funds are appropriated for a particular capital improvements project, the Department may, with the approval of the Governor, use funds from the Harbor Special Fund rather than bond funds to finance that project. Appropriations made for a fiscal biennium that are not encumbered lapse three years from the first year of that biennium period. However, appropriations made for a fiscal biennium that involve federal matching funds are subject to lapsing five years from the first year of that biennium period.

Harbors Modernization Plan. Working in partnership with HHUG, State officials from the Departments of Transportation, Budget and Finance, and Business, Economic Development & Tourism, along with the State Tourism Liaison, State Economist and other State officials, reached consensus on an $842.0 million Harbors Modernization Program ("HMP"). The HMP was originally comprised of projects to upgrade and improve the commercial harbor system within a proposed six-plus year timeframe.

The Legislature enacted Act 200 SLH 2008 ("Act 200") designating the Aloha Tower Development Corporation ("ATDC") as the entity responsible for the management and implementation of the HMP under the direction of the Department. The Governor had established a Hawaii Harbor Task Force to encourage the collaboration between the Harbors Division and ATDC to redevelop the Kapalama Military Reservation at Honolulu Harbor as an expanded container terminal. This $556 million project is the centerpiece of the Harbor Modernization Program. To effect this redevelopment, other areas within Honolulu Harbor also needed to be expanded and redeveloped.

Act 200 established a Harbors Modernization Group to oversee ATDC's work in the statewide implementation of the HMP. Act 200 authorized the Department to issue harbor revenue Bonds to finance the HMP. The original $842.0 million cost of the HMP was subsequently revised to $618.0 million. Act 200 also placed Hana Harbor on Maui under the jurisdiction of the Harbor System and included appropriations for the upgrade of its pier.

ATDC implemented various preliminary work including development plans for Piers 23-28, Honolulu Harbor, Kahului Harbor, and Kawaihae Harbor and the demolition of the cargo sheds located at Piers 1 and 39 of Honolulu Harbor. The Legislature in its 2010 legislative session effectively terminated ATDC's operations on June 30, 2010. Act 152, SLH 2011 placed the ATDC under the Department for administrative purposes. The Deputy Director of the Harbors Division serves as the Chair of the ATDC Board. Contracts executed by ATDC for HMP projects were assigned to the Harbors Division, which assumed management and implementation responsibilities for the HMP. The modernization projects have been integrated into the Department's, capital improvements program comprised of priority public works projects critical to create jobs and to jumpstart the economy.

The legislative changes to the management of the HMP projects have not affected the development of the Kapalama Container Terminal project. Phase I of the Kapalama Container Terminal consisting of land side container yard improvements are expected to be substantially completed in December 2020. Phase II, consisting of dredging and construction of wharf improvements, is expected to commence in January 2021. Bond proceeds will fund more than 20% of the Phase II construction project with the balance funded from the Harbor Special Fund.

Oahu Commercial Harbors 2020 Master Plan. The Oahu Commercial Harbors 2020 Master Plan provides a general, long-range guide for commercial harbor development, based on the knowledge and experience of the users of the facilities and their anticipation of future trends. Many aspects of this master plan have been completed, including the Honolulu Harbor Inter-Island Cargo Terminal at Piers 39-40, acquisition of land to expand cargo operations near Pier 40, the ferry terminal at Pier 19, the Pier 2 cruise passenger terminal, demolition of the Pier 1 shed and cargo yard expansion of the foreign cargo yard and addition of US Customs at the pier, full build-out including private construction within the Domestic Commercial Fishing Complex, and the reconstruction of Pier 29 at Honolulu Harbor, a former brownfield site. Additional improvements to Pier 51A and Pier 51C to Pier 53 terminal yard are planned during the construction of Kapalama Phase II.

Other aspects of the Oahu Commercial Harbors 2020 Master Plan that have been completed were the construction of the Kalaeloa Barbers Point Harbor Pier P-5, the establishment of the Sause Bros. neo-bulk terminal at Kalaeloa Barbers Point Harbor Pier 5, the establishment of the Grace Pacific dry bulk terminal at Kalaeloa Barbers Point Harbor Pier 7, and the dredging of the Kalaeloa Barbers Point Harbor.

Hawaii Commercial Harbors 2020 Master Plan, Kahului Harbor 2025 Master Plan, Kauai Commercial Harbors 2025 Master Plan. Following completion of the Oahu Commercial Harbors 2020 Master Plan, the Harbors Division began to update the 2010 Master Plans for commercial harbors statewide. To date the aforementioned plans were completed and approved by the Governor on August 7, 1998, September 14, 2000, and September 21, 2001, respectively. These master plans provide a general, long-range guide for commercial harbor development, based on the knowledge and experience of the users of the facilities and their anticipation of future trends. Currently, the Kahului Harbor 2025 Master Plan is being updated to the planning horizon of 2050. The Harbors Division is also updating the Hawaii Commercial Harbors 2020 Master Plan to the planning horizon of 2050.

Federal Funds Assistance. The Harbors Division has been working to increase the level of federal assistance with Port Security Grants and additional sources of funding for its Capital Improvements Program. As discussed below, the Harbors Division has successfully obtained federal funding assistance for its port security program, Pier 29 construction through the Transportation Investment Generating Economic Recovery ("TIGER") grant program, and Hawaii Port Infrastructure Expansion Program.

Hawaii Port Infrastructure Expansion Program. The Hawaii Port Infrastructure Expansion Program provides a mechanism for the U.S. Maritime Administration ("MARAD") to consolidate federal, state and private funds to be expended on improvements to the State's port facilities pursuant to the federal Merchant Marine Act of 1936, as amended. As the lead federal agency for this program, MARAD has entered into a Memorandum of Agreement with the Department to assist in the modernization of the Harbor System and will provide federal oversight and coordination of projects and act as a central procurement organization to leverage federal and non-federal funding resources.

In July 2009, MARAD awarded a seven-year program management and technical services contract with a maximum value of $400 million to TEC, Inc. to provide planning, engineering and environmental services. Projects under this contract include traffic circulation and interior improvements to the Pier 2 passenger terminal at Honolulu Harbor, vehicular and pedestrian traffic circulation improvements at Hilo Harbor and a fuel pier development plan at Kalaeloa Barbers Point Harbor.

American Recovery and Reinvestment Act of 2009 Grants. In 2009, the U.S. Department of Transportation announced the availability of $1.5 billion in grant funds under the TIGER grant program. This program, authorized by the American Recovery and Reinvestment Act of 2009, provides grants on a competitive basis for capital projects, including port infrastructure projects. The Department was awarded a grant of up to $24.5 million for the reconstruction of Pier 29 at Honolulu Harbor, which had suffered structural failures in 2008 that displaced cargo activity. Construction commenced in August 2010 and was completed in 2012.

Port Security Grants. The federal Maritime Transportation Security Act of 2002, and its implementing regulations, has imposed substantial security requirements on the Harbor System. In order to address these requirements, the Department pursued federal funds through the Port Security Grant Program under the U.S. Department of Homeland Security to assist in the financing of various security-related infrastructure improvements at the Harbors Division's ports. Federal grant funds were utilized to upgrade security barriers at various access points into Honolulu Harbor, improve passenger screening, increase terminal surveillance capabilities, provide for electronic access systems to harbor offices, and provide for wireless security command systems and inter-operable radios to enhance communications.

The Department's security status was subsequently elevated in 2008 to Group 2, which enhances the Department's eligibility for grant funds to plan for and mitigate security risks. Since fiscal year 2015, the Port Security Grant Program ("PSGP") is administered by the State's Emergency Management Agency, HiEMA, as such, the Harbors Division no longer directly receives any PSGP federal grant awards, rather the Harbors Division is a sub-recipient/sub-grantee of federal awards through HiEMA.

Summary of Financial Information

General. The Harbors Division maintains its accounting records on a modified cash basis of accounting whereby revenues are recognized when billed and expenses are recognized when paid. In order to prepare its annual financial statements on an accrual basis of accounting, adjustments are made to convert the accounting records from a modified cash basis to an accrual basis. The annual financial statements of the Harbors Division, including those presented in APPENDIX A, are audited by independent auditors retained by the State Office of the Auditor. The most recent fiscal year for which audited financial statements are available is the fiscal year ended June 30, 2019. All financial information provided for the year ending June 30, 2020 is unaudited. KKDLY LLC is currently conducting its audit of the financial statements of the Harbors Division for the fiscal year ended June 30, 2020. The results of the audit may become available prior to delivery of the Series 2020 Bonds, and if so completed the report will be distributed to purchasers.

Historical Operations. Table 12 sets forth the sources of operating revenues and operating expenses of the Harbor System for fiscal years 2015 through 2020.

TABLE 12
STATEMENT OF HISTORICAL OPERATIONS
Fiscal Years Ended June 30, 2015 through 2020
(000's)

	Fiscal Year Ended June 30					
OPERATING REVENUES	2015	2016	2017	2018	2019	2020 (unaudited)
Services						
Wharfage	$ 82,537	$ 88,746	$ 95,407	$ 118,168	$ 140,867	$ 131,086
Passenger debark/embark	6,584	7,040	8,143	8,164	9,046	6,298
Dockage	5,081	5,495	4,867	5,692	4,977	6,323
Port Entry	1,058	1,064	1,044	1,113	1,080	1,161
Demurrage	1,678	2,322	2,078	1,472	1,798	1,919
Mooring charges	1,218	912	1,266	1,098	1,409	917
Cleaning wharves	237	193	280	307	117	117
Others	42	203	77	25	(105)	75
Total services	$ 98,435	$105,975	$113,162	$136,039	$ 159,189	$147,896
Rentals						
Wharf space and land	$13,226	$12,623	$ 9,094	$13,863	14,214	$ 13,399
Storage	4,455	4,800	7,371	6,508	5,938	4,941
Pipelines	4,488	4,573	5,053	5,864	8,380	7,745
Auto parking	1,245	1,331	1,360	1,449	1,334	1,035
Total rentals	$ 23,414	$23,327	$22,878	$27,684	$29,866	$ 27,120
Other Revenues						
Sale of utilities	$ 667	$ 499	$ 607	$ 526	$ 662	$ 586
Miscellaneous	694	325	974	862	1,000	530
Total other revenues	$ 1,361	$ 824	$1,581	$ 1,388	$ 1,662	$ 1,116
Total Operating Revenues	$123,210	$130,126	$137,621	$165,111	$ 190,717	$176,132
OPERATING EXPENSES BEFORE DEPRECIATION						
Personnel services	$ 17,687	$ 18,990	$ 21,490	$ 21,922	$ 22,302	$ 23,692
Harbor operations, maintenance and general administration	23,494	23,325	28,635	30,276	22,838	23,074
State of Hawaii surcharge for central service expenses	3,811	4,263	4,901	6,068	7,475	7,852
Fireboat operations	32	100	0	0	0	0
DOT admin. expense	1,781	1,652	2,558	1,335	2,046	1,443
Total Operating Expenses before Depreciation	$ 46,805	$48,330	$ 57,584	$59,601	$54,661	$56,061
INCOME FROM OPERATIONS BEFORE DEPRECIATION	**$ 76,405**	**$ 81,796**	**$ 80,037**	**$ 105,510**	**$ 136,056**	**$ 120,071**

Historical and Projected Debt Service Coverage. Table 13 presents a summary of historical revenues and debt service coverage on outstanding Bonds for the fiscal years ended June 30, 2016 through June 30, 2020 (unaudited), and the projected revenues and debt service coverage on the Bonds, including the Series 2020 Bonds, for the fiscal years ending June 30, 2016 through June 30, 2020 (unaudited). The figures for historical operating revenues and operating expenses before depreciation are taken from the audited financial statements for Fiscal Years 2016 through 2019. The adjustments and calculations performed to determine historical debt service coverage are in accordance with the provisions of the certificate providing for the issuance of such Bonds. Projected debt service coverage is calculated based on debt service to be paid in that year.

TABLE 13
HISTORICAL AND PROJECTED DEBT SERVICE COVERAGE
Fiscal Years Ended June 30, 2016 through 2025
(000's)

	Historical				Projected					
	Fiscal Year Ended June 30									
Operating Revenues	2016	2017	2018	2019	2020 (Unaudited)	2021	2022	2023	2024	2025
Services	$ 105,975	$ 113,162	$ 136,039	$ 159,189	$ 147,896	$ 132,007	$ 155,656	$ 170,683	$ 175,193	$ 179,836
Rentals	23,327	22,878	27,684	29,866	27,120	27,401	28,046	29,845	30,116	30,395
Other revenues	824	1,581	1,388	1,662	1,116	1,236	1,343	1,359	1,359	1,359
Revenue pass-through for use of Ceded Lands						(10,000)	(10,000)	(10,000)	(10,000)	(10,000)
Total Operating Revenues	$ 130,126	$ 137,621	$ 165,111	$ 190,717	$ 176,132	$ 150,644	$ 175,045	$191,887	$196,668	$201,590
Operating Expenses Before Depreciation	$ 48,330	$ 57,784	$ 59,601	$ 54,661	$ 56,061	$ 60,866	$ 61,869	$ 63,351	$ 64,593	$ 65,321
Income From Operations Before Depreciation	$ 81,796	$ 80,037	$ 105,510	$ 136,056	$ 120,071	$ 89,778	$ 113,176	$ 128,536	$ 132,075	$ 136,269
Add: (1)										
Interest income (2)	$ 1,724	$ 2,431	$ 5,488	$ 7,887	$ 7,490	$ 1,168	$ 468	$ 468	$ 468	$ 468
State of Hawaii surcharge for central services (3)	4,263	4,901	6,068	7,475	7,852	5,874	6,861	7,704	7,903	8,183
Cash available in 1997 Certificate Harbor Reserve and Contingency Account (4)	10,898	10,898	10,898	10,898	10,898	10,898	10,898	10,898	10,898	10,898
Revenues Available For Debt Service	$ 98,681	$ 98,267	$ 127,964	$ 162,316	$ 146,311	$ 107,718	$ 131,403	$ 147,606	$ 151,344	$ 155,818
Aggregate Debt Service Coverage of 1997 Certificate Harbor Revenue Bonds										
Aggregate Debt Service (5)	$ 31,187	$ 31,176	$ 29,114	$ 28,936	$ 28,940	$ 28,246	$ 33,245	$ 33,245	$ 27,706	$ 27,706
Aggregate Debt Service Coverage (6)	3.16	3.15	4.40	5.61	5.06	3.81	3.95	4.44	5.46	5.62
Reimbursable General Obligation Bond Debt Service (7)	$ 3,381	$ 3,381	$ 3,381	$ 3,381	$ 3,381	$ 3,381	$ 3,381	$ 3,381	$ 3,381	$ 3,381

(1) In accordance with the definition of Revenues set forth in the Certificate. Commencing with projections for FY2021 through FY2025, the remittances to the Office of Hawaiian Affairs are reflected as reductions to Harbors Revenues, not as a component of Operating Expenses Before Depreciation, in the amount of $10,000 for FY 2021 through FY 2025.
(2) Excludes direct financing leases.
(3) The State assesses a surcharge of 5% for central services expenses on all receipts of the Harbors Division, after deducting any amounts pledged, charged or encumbered for the payment of Bonds and interest during the fiscal year.
(4) Special reserve account created pursuant to the Certificate. As discussed under "SECURITY FOR THE BONDS—Rates and Charges" herein, amounts on deposit in this Account are taken into account for purposes of calculating debt service coverage under the Rate Covenant. See also "Application and Allocation of Revenues - 1997 Certificate Harbor Reserve and Contingency Account" in APPENDIX C hereto for a discussion of the uses of funds in this Account.
(5) Includes refunding of 2010A Bonds and New money totaling a par amount of $175.0 million.
(6) Coverage calculated pursuant to the Certificate for Fiscal Years 2016 – 2020. Projected coverage is calculated based on debt service scheduled to be paid in each respective year, Fiscal Years 2021 – 2025.
(7) The Department is required to reimburse the State General Fund for debt service on these Bonds from Revenues. Figures reflect interest and principal payments. Approximately $40,000,000 of general obligation Bonds was appropriated from State of Hawaii General Obligation Bond Series DI, Series DJ and Series DK for harbor improvements to support the operations of the Hawaii Superferry, Inc., of which the Department expended approximately $39,731,000. The amounts reported represent payments for interest owed on these general obligation Bonds in that fiscal year.

Management Discussion and Analysis

The financial information provided for the year ending June 30, 2020, has been provided by the Harbors Division. All financial information provided for the year ending June 30, 2020, is unaudited.

Operating Revenues. Total operating revenues for fiscal year 2020 are approximately $176.1 million, compared to $190.7 million for fiscal year 2019, $165.1 million for fiscal year 2018 and $137.6 million for fiscal year 2017. Operating revenues consist primarily of service revenues and rental revenues, which accounted for 84% and 15.4%, respectively, in fiscal year 2020, 83.5% and 15.7%, respectively, in fiscal year 2019, and 82.4% and 16.8%, respectively, in fiscal year 2018, of the Harbors Division's total operating revenues.

Services Revenues. Services revenues are directly related to cargo and ship operations. Service revenues include wharfage, passenger fees, and other ship related fees. Services revenues in fiscal years 2020, 2019 and 2018 were $147.9 million, $159.2 million and $136.0 million, respectively. Service revenues for fiscal year 2020 decreased $11.3 million or 7.1% as compared to 2019, and 2019 increased $23.2 million or 17.0% as compared to fiscal year 2018, due primarily to decreases in fiscal year 2020 wharfage revenues and passenger fee revenues.

Wharfage revenue from cargo movements for fiscal year 2020 decreased $9.8 million as compared to 2019, from $140.9 million in fiscal year 2019 to $131.1 million in fiscal year 2020, due primarily to the effects of the COVID-19 pandemic which resulted in reduced cargo volumes shipped through the Harbor System and due to increased allowances for doubtful accounts receivable recorded for slow payors of fiscal year 2020 wharfage fees. This decrease was partially offset by the scheduled 3% increase in tariff rates that took effect on July 1, 2019. Wharfage revenue increased by $22.7 million from $118.2 million in fiscal year 2018 to $140.9 million in fiscal year 2019 due primarily to an increase of 15% in tariff rates that took effect on July 1, 2018. Services revenues for fiscal year 2018 increased $22.9 million or 20.2% as compared to fiscal year 2017. Wharfage revenue from cargo movements had increased by $22.8 million from $95.4 million in fiscal year 2017 to $118.2 million in fiscal year 2018 due primarily to an increase of 15% in tariff rates that took effect on October 1, 2017. The preceding increases in tariff rates were applied to the rates then in effect.

Passenger fee revenue decreased by $2.7 million or 30% from $9.0 million in fiscal year 2019 to $6.3 million in fiscal year 2020, as cruise ship travel was suspended in March 2020 due to the COVID-19 pandemic. This suspension caused passenger volumes (inbound and outbound) for fiscal year 2020 to drop to approximately 813,000 passengers, a decrease of approximately 387,000 passengers from the 1.2 million passengers in fiscal year 2019. Passenger fee revenue had increased by $0.8 million or 10.8% from $8.2 million in fiscal year 2018 to $9.0 million in fiscal year 2019, as passenger volumes (inbound and outbound) in fiscal year 2019 was approximately 1.2 million passengers, an increase of approximately 100,000 passengers from fiscal year 2018. Passenger fee revenue in fiscal year 2018 remained relatively unchanged from fiscal year 2017. Effective July 1, 2018, a flat fee for embark and debark fee was implemented at $15.00 per passenger for Honolulu Harbor, Oahu; and $8.00 per passenger at Hilo and Kawaihae Harbors, Hawaii; Kahului Harbor, Maui; Kaunakakai Harbor, Molokai; Kaumalapau Harbor, Lanai; and Nawiliwili Harbor, Kauai. In fiscal year 2018, the embark and debark fee was $7.50 per passenger for all above-named ports.

Rental Revenues. Rental revenues for fiscal year 2020 were $27.1 million, a decrease from fiscal year 2019 of approximately $2.8 million. This reduction was due primarily to decreased storage fee revenues of approximately $997,000, decreased lease rental income of approximately $815,000, due primarily to lease and revocable permit cancellations and decreased pipeline fees of approximately $635,000 due to reduced volumes of imported jet fuel and gasoline, which were partially offset by a 3% increase in tariff rates, applied to the rates then in effect that took effect on July 1, 2019. Rental revenues for fiscal year 2019 were $29.9 million an increase from fiscal year 2018 of approximately $2.2 million, due primarily to a 15% pipeline tariff rate increase, effective July 1, 2018. Rental revenues for fiscal year 2018 were $27.7 million, an increase from fiscal year 2017 of approximately $4.8 million, due primarily to a 15% pipeline tariff rate increase, effective October 1, 2017.

Operating Expenses. Operating expenses, excluding depreciation expense, for fiscal years 2020, 2019 and 2018 amounted to $56.1 million, $54.7 million and $59.6 million, respectively. The increase in operating expenses for fiscal year 2020 in comparison to fiscal year 2019 of $1.4 million or 2.6% was due primarily to increases in personnel costs of $1.4 million which resulted from staffing changes and increases in the OPEB and Pension liabilities, increases in other operational expenditures of approximately $0.2 million, and increases in the State surcharge for central services expenses of approximately $0.4 million, which were offset by decreases in General and Administrative Expenses of approximately $0.6 million. The decrease in operating expenses for fiscal year 2019, in comparison to fiscal year 2018 of $4.9 million or 8.3%, was due primarily to decreases in harbor operations costs of $6.4 million and maintenance costs of $2.2 million, offset by increases in State surcharge for central service expenses of $1.4 million and general administration expenses of $1.1 million. Operating expenses, excluding depreciation expense, for fiscal years 2018 and 2017 amounted to $59.6 million and $57.6 million, respectively. The increase in operating expenses for fiscal year 2018 in comparison to fiscal year 2017 of $2.0 million or 3.5% was due primarily to increases in harbor operations costs of $1.8 million and State surcharge for central services expense of $1.2 million, offset by a decrease in Department of Transportation general administrative expenses of $1.2 million. Harbor operations costs for fiscal year 2019 decreased by $6.4 million as compared to fiscal year 2018 due primarily to a transfer of $5.3 million to the State Department of Budget and Finance in fiscal year 2018 to return certain payments for expenses required by State Statues. Harbor operations costs for fiscal year 2018 increased by $1.8 million as compared to fiscal year 2017 due primarily to an increase in expenses required by State Statutes of $1.6 million.

A summary of operations and changes in net position for Fiscal Years 2020, 2019 and 2018 follows:

TABLE 14
CONDENSED STATEMENT OF REVENUES, EXPENSES AND CHANGES IN NET POSITION
(000's)

	Year Ended June 30			2020 – 2019		2019 – 2018	
	2020 (Unaudited)	2019	2018	Increase (decrease)	% Change	Increase (decrease)	% Change
Operating revenues	$ 176,132	$ 190,717	$ 165,111	$ (14,585)	(7.6) %	$ 25,606	15.5 %
Nonoperating revenues	7,490	7,888	5,488	(398)	(5.0)	2,400	43.7
Total revenues	183,622	198,605	170,599	(14,983)	(7.5)	28,006	16.4
Depreciation and amortization	32,453	28,994	27,019	3,459	11.9	1,975	7.3
Other operating expenses	56,061	54,661	59,601	1,400	2.6	(4,940)	(8.3)
Nonoperating expenses	17,975	9,239	11,845	8,736	94.7	(2,606)	(22.0)
Total expenses	106,489	92,894	98,465	13,595	14.6	(5,571)	(5.7)
Income before capital contributions	77,133	105,711	72,134	(28,578)	(27.0)	33,577	46.5
Capital contributions	163	-	153	163	(100.0)	(153)	(100.0)
Change in net position	77,296	105,711	72,287	(28,415)	(26.9)	33,424	46.2
Net position, beginning of year	995,845	890,134	817,847	105,711	11.9	72,287	8.8
Increase in net assets	$ 1,073,141	$ 995,845	$ 890,134	$ 77,296	7.8	$ 105,711	11.9

Forecast for Fiscal Year 2020. Revenues (including operating revenues and interest income) for fiscal year 2020 are forecast to be $183.6 million, as compared to revenues of $198.6 million for fiscal year 2019. Revenues are forecast to decrease by $15.0 million or 7.6% in fiscal year 2020 as compared to fiscal year 2019 due to projected decreases in operating revenues of approximately $14.6 million resulting from the COVID-19 pandemic and a decrease in interest income of approximately $0.4 million due to lower yields on pooled investments in the State Treasury.

Operating expenses for Fiscal Year 2020 are forecast on an accrual basis to be $56.1 million, as compared to $54.7 million for Fiscal Year 2019. Expenses are forecast to increase by approximately $1.4 million or 2.6% in Fiscal Year 2020 as compared to Fiscal Year 2019 due to projected increases in personnel costs of 1.4 million which resulted from staffing changes and increases in the OPEB and Pension liabilities, increases in other operational expenditures of approximately $0.2 million, and increases in the State Central Services Fees of approximately $0.4 million, which were offset by decreases in General and Administrative Expenses of approximately $0.6 million.

Cruise Ships. Revenues from debarked and embarked cruise ship passengers totaled approximately $9.0 million and $8.2 million in the fiscal years ended June 30, 2019 and June 30, 2018, respectively. These revenues, which are included in services revenues, represented 4.7% and 4.9% of total operating revenues for fiscal years 2019 and 2018, respectively. Passenger counts increased 7.8% in fiscal year 2019 as compared to passenger counts for fiscal year 2018. Revenues for fiscal year 2019 increased by 10.8% over that of the previous year. Embarked and debarked passenger counts for the fiscal years ended June 30, 2015 through June 30, 2020 were as follows:

Fiscal Year	Passengers
2015	1,012,412
2016	1,006,197
2017	1,085,633
2018	1,082,453
2019	1,166,514
2020	813,073

Cruise ship travel to and from the State has been suspended during the COVID-19 pandemic due primarily to the cruise ship industry's self-imposed "No Sail Initiative," to comply with guidance from the United States Centers for Disease Control and Prevention (CDC) and to respond to the 14-day self-quarantine requirement imposed by the State on travelers to the State. The fiscal year 2020 passenger count represents only eight months of travel as cruise ships ceased travel to Hawai`i in March 2020.. Cruise lines are planning for a resumption of travel no earlier than January 2021. A joint project of Royal Caribbean Cruises and Norwegian Cruise Line Holdings has resulted in Healthy Sail Panel recommendations presently being reviewed by the CDC. The Healthy Sail Panel's 65-plus-page report included 74 detailed best practices to protect the public health and safety of guests, crew and the communities where cruise ships call. The Department is taking a holistic approach in reviewing the Panel's report to include methods and approaches to sharing protocols with the public, obtaining CDC guidance on appropriate passenger screening measures, terminal measures such as screening to ensure infected persons don't embark, destinations/shore excursions safety measures to protect, sites to be visited and transportation workers, enhanced medical capabilities/evacuation plans, including medical team redundancy, quarantine space/evacuation plan that sets aside a certain number of staterooms may be set aside as a quarantine areas, and ground handling plans like luggage handling and bringing on stores have to be accounted for in the plan.

Interisland Ferry System. Act 178, SLH 2005, appropriated reimbursable General Obligation Bonds in the principal amount of $20 million in each of fiscal years 2006 and 2007 for harbor improvements, including improvements needed to support the operations of an interisland ferry system, which ceased operations March 19, 2009. The Harbors Division executed a $37.5 million contract for the construction of barges and ramps with the balance of the appropriations expended to finance other harbor upgrades needed to support the operations of Hawaii Superferry, Inc. ("HSF"). HSF commenced operations in August 2007, but operations were enjoined by a State Supreme Court decision requiring that an environmental assessment must be performed for harbor improvements at Kahului Harbor intended for use by the ferry system, and a second decision declaring unconstitutional legislation permitting use of the harbor improvements pending completion of the environmental assessment. HSF and its parent subsequently filed petitions for bankruptcy and abandoned the ferry system. The Department is responsible for debt service payments on the Bonds. See “INDEBTEDNESS – Reimbursable General Obligation Bonds.”.

Pasha. Pasha initiated service to the State in March 2005 and calls at Honolulu Harbor as well as the neighbor island ports, Kahului Harbor and Hilo Harbor. Its vessel, the *Jean Anne*, is the first pure car/truck carrier constructed to meet the requirements of the Jones Act. The ship is designed to carry approximately 4,300 vehicles on 10 decks and provides Hawaii with additional services to transport vehicles, rolling stock and other commodities from the west coast of the United States. Pasha’s vessel the *Marjorie C*, a container and roll-on/roll-off ship designed to carry approximately 1,400 TEU’s and approximately 1,100 vehicles, made its maiden voyage to Honolulu in May 2015. The *Marjorie C* represents an investment by Pasha of $200 million.

On May 29, 2015 The Pasha Group acquired the Hawaii trade-lane business of Horizon Lines, Inc. (Horizon). Pasha Hawaii assumes operations for all of Horizon’s Hawaii business, including its four United States-flag container ships serving the Hawaii trade lane. The Pasha Group has also acquired Horizon subsidiaries Hawaii Stevedores, Inc.; the California-based operations of Sea-Logix, LLC, which provides trucking services; and Sunrise Operations, a subsidiary that includes Horizon’s Hawaii trade-lane vessels and employees. The Pasha Group operates Pasha.

Pasha announced during April 2019 its progress on the construction of two Liquefied Natural Gas-fueled containerships are currently being built to serve the Hawaii/United States Mainland trade lane. Delivery of the ‘Ohana Class vessels is currently expected to occur by the end of 2020.

Aloha Tower Complex. ATDC was created in 1981 pursuant to Chapter 206-J, HRS. ATDC is authorized to plan, develop or redevelop lands located seaward of Nimitz Highway between Pier 4 at Honolulu Harbor and the Honolulu International Airport. ATDC focused on the redevelopment of the Aloha Tower area of Honolulu Harbor (the “Aloha Tower Complex”), which encompasses Piers 5 to 23 of Honolulu Harbor. Pursuant to Chapter 206-J, ATDC entered into a lease with the Harbors Division in 1993 for a portion of the Aloha Tower Complex. The lease required ATDC to reimburse the Harbors Division annually for any losses in revenues caused by ATDC or the developer of the complex and to provide replacement facilities for maritime activities at no cost to the Harbors Division.

In September 1993, ATDC subleased lands surrounded by Piers 8 and 9 and a portion of land surrounded by Pier 10 to a developer. The sublease required the developer to construct various facilities on the land including a retail marketplace. The developer entered into a capital improvements, maintenance, operations and securities agreement with the Harbors Division (the “Operations Agreement”), providing for the Harbors Division to operate the related harbor facilities. The developer was forced into bankruptcy shortly thereafter. In March 1998, a second entity assumed the developer’s obligations under the sublease and the Operations Agreement. This entity filed for bankruptcy protection in 2002 and a third entity has since assumed the initial developer’s obligations under the sublease and the Operations Agreement. Although construction of the marketplace had been completed, several items on the Harbors Division’s construction punchlist were outstanding. Under the Operations Agreement, the developer/marketplace operator had outstanding obligations for certain punchlist items. The new operator assumed the obligations to complete the punchlist items. However, many of the items were actually completed by the Harbors Division and the actual cost required to complete the punchlist items was in dispute. The new operator has agreed to settle the dispute. The settlement, which will satisfy the new operator’s punchlist obligations, has a total value of $3.5 million, depending on when actual payments are made by the operator within a six-year timeframe.

On January 18, 2006, an Agreement Amending the Aloha Tower Project Memorandum of Understanding and Aloha Tower Ground Lease was executed, effective as of June 30, 2005, and retroactive to July 1, 2004 (the “Amendment”). The Amendment requires ATDC to pay $225,000 as a minimum annual base payment for losses in revenues owing in the fiscal year beginning July 1, 2004. From July 1, 2005, subject to the approval of the Deputy Director for the Harbors Division, the base payment of $225,000 will be reduced by expenses incurred by ATDC for the Hawaii Harbors Project Office. The Amendment also requires an equity participation payment to be made in an amount of 50% of the difference between the total revenues and total operating expenses of ATDC for a fiscal year (the “equity payment”), provided that if the equity payment exceeds two and one-half times the actual operating expenses of ATDC for such fiscal year, ATDC must make a supplemental payment equal to 75% of the difference between the equity payment and the product of two and one-half times the actual operating expenditures of ATDC.

These payments are to be applied to reduce the amount owed to the Harbors Division for losses in revenues by ATDC prior to July 1, 2004. The balance owed to the Harbors Division by ATDC as of June 30, 2020 was approximately $2.59 million.

Environmental Issues. The Harbors Division has been identified, among others, as a potentially responsible party by the State Department of Health with respect to subsurface petroleum contamination in the Honolulu Harbor/Iwilei area between Piers 18 and 38. The Harbors Division entered into a voluntary response agreement with the Department of Health and other third parties to share in the responsibilities for the investigation and potential remediation of subsurface petroleum contamination in the Iwilei District. This group of potentially responsible parties, known as the Iwilei District Participating Parties ("IDPP"), has conducted various investigations to determine potential subsurface contamination in the Iwilei area from 1997 to present, which investigations have determined the existence of petroleum contamination at various locations. Potential remediation alternatives are being studied but the project has not yet advanced to the stage where total costs to the IDPP can be reasonably estimated. In accordance with Governmental Accounting Standards Board Statement No. 49, Accounting and Financial Reporting for Pollution Remediation Obligations (GASB 49), the Harbors Division accrued $806,000, the Harbors Division's estimated allocated cost of the study and investigation. The Department of Health has stated that it will take a risk-based approach to any remediation efforts, that is, remediation consistent with the use of the property. Since the sites involved are expected to remain in industrial use, such remediation efforts may be limited to capping and long-term management of the site.

Following a December, 2008 audit conducted by the United States Environmental Protection Agency ("EPA") to determine Harbors Division's compliance with Storm Water Environmental Permits, an Administrative Order was issued in June, 2009 directing the Harbors Division to revise its Storm Water Management Plan, upgrade environmental inspections and procedures, improve documentation of environmental inspections and follow up actions, establish Best Management Practices ("BMPs") standards, and include the use of permanent BMPs in any construction projects that are undertaken on Harbor System premises. The EPA established several intermediate deadlines and an overall compliance deadline of December 31, 2020. The Department has met all intermediate deadlines and expects to meet the overall compliance deadline.

Office of Hawaiian Affairs and Ceded Lands. The property comprising the Harbor System includes certain lands ("Ceded Lands") transferred by the former Republic of Hawaii to the United States in 1898. Upon the State's admission to the Union in 1959, the United States reconveyed title to the Ceded Lands to the State to be held as a public trust for five purposes: (1) public education; (2) betterment of the conditions of native Hawaiians; (3) development of farm and home ownership; (4) making public improvements; and (5) provision of land for public use. In 1978, the State Constitution was amended expressly to provide that the Ceded Lands were to be held as a public trust for native Hawaiians and the general public, and to establish the Office of Hawaiian Affairs ("OHA") to administer and manage the proceeds and income derived from a pro rata portion of the Ceded Lands to better the conditions of native Hawaiians. See "Office of Hawaiian Affairs and Ceded Lands" in APPENDIX B for a discussion of pending litigation regarding the Ceded Lands.

In 2006, Act 178, SLH 2006, was enacted. It fixed the amount of proceeds and income from the Ceded Lands that OHA is to receive annually, beginning with the fiscal year ended June 30, 2006. The Act provides that all State departments or agencies collecting receipts from third-party users of Ceded Lands, (specifically including the Departments of Agriculture, Accounting and General Services, Business, Economic Development and Tourism, Education, Land and Natural Resources, and Transportation–Harbors Division) shall collectively pay the following amounts to OHA from such receipts: (a) within 30 days after the end of the 2005-2006 fiscal year, the sum of $15.1 million; and (b) within 30 days after each fiscal quarter thereafter, such amounts as are necessary to ensure that a total of $3.775 million of such receipts is transferred to OHA. The Act does not specify each affected department's or agency's share of such payments, but expressly authorizes the Governor to do so by executive order. The Governor issued Executive Order No. 06-06 on September 20, 2006 to instruct affected departments regarding the implementation of Act 178. The Department relies on Executive Order No. 06-06 and the accounting and the instructions provided in the Executive Order regarding the remittance of payments to OHA through the Department of Budget and Finance. The instructions to implement Executive Order No. 06-06 direct the Department to process payments to OHA as a reduction in revenues rather than as an operating expenditure. These payments or remittances represent pass-through revenue transfers which are neither considered nor defined as expenditures in accordance with Article VIII, Section 5 of the Hawaii State Constitution. Thus, there is no requirement that an annual Legislative Appropriation be established for the Harbor System to pay those pass-through remittances or revenue transfers to OHA. In effect, the amounts remitted to OHA result from the Harbor System serving as a collection agent of receipts that include amounts belonging to the Harbor System and amounts belonging to OHA, paid by third-party users of Harbor System facilities sited on Ceded Lands.

Climate Change Issues

The foreseeable impacts of rising sea levels and other climate change challenges are priorities for the State due to its geographic isolation, coastal-focused society, and observable present-day impacts from coastal erosion and flooding. The State and the Department have taken crucial measures to address Hawaii's vulnerability to climate change and sea level rise by using best available science to inform decision making.

On June 7, 2017 Governor Ige signed Act 32, SLH 2017 (the "Climate Change Act") into law, which, among other things, renamed the Interagency Climate Adaptation Committee as the Hawaii Climate Change Mitigation and Adaptation Commission (the "Climate Commission"), clarified and expanded the duties of the Climate Commission and made the State the first state to enact legislation implementing parts of the Paris Climate Accord. The Climate Change Act anticipates that the Climate Commission will provide direction, facilitation, coordination and planning among state and county agencies, federal agencies, and other partners about climate change mitigation (reduction of greenhouse gases ("GHG")) and climate change resiliency strategies, including, but not limited to, sea level rise adaptation, water and agricultural security, and natural resource conservation. The Climate Commission is administratively based at the State Department of Land and Natural Resources, and jointly co-chaired by the Chairperson of the State Board of Land and Natural Resources and the Director of the State Office of Planning. More information is available at http://climate.hawaii.gov. Such other information available at such website or linked therefrom are expressly not incorporated herein by this reference.

The Fifth Assessment Report by the Intergovernmental Panel on Climate Change (the "IPCC Report"), predicted that if GHG continue at the then-current (2014) rate of increase, there would be 3.2 feet of global sea level rise by the year 2100. Current and best available science projects that the rate of rise is accelerating. The National Oceanic and Atmospheric Administration ("NOAA") published a set of sea level rise scenarios that are associated with emissions-based projections. Each scenario assumes a non-linear rate of rise in which the intermediate scenario reaches 1.3 and 4.2 feet in Honolulu by 2050 and 2100, respectively[1]. In the extreme scenario, levels are projected as high as 2.4 and 10.5 feet by 2050 and 2100, respectively. Based upon the IPCC Report, other federal research, and additional scientific literature the Climate Commission prepared the State of Hawaii's 2017 Hawaii Sea Level Rise Vulnerability and Adaptation Report (the "2017 Climate Report"). The 2017 Climate Report includes descriptions of the anticipated impact of 3.2 feet of sea level rise occurring by the year 2100, or as early as the year 2060. The 2017 Climate Report is not incorporated herein, is not a part of this Official Statement, and is available at https://climate.hawaii.gov/wp-content/uploads/2019/02/SLR-Report_Dec2017-with-updated-disclaimer.pdf .

There are numerous scientific studies on global climate change that include, among other effects on the global ecosystem besides sea level rise, predictions that extreme temperatures will become more common and extreme weather events will become more frequent and more intense; a result of increasing global temperatures attributable to atmospheric pollution. Historical information obtained from the National Oceanic and Atmospheric Administration shows tidal fluctuations around the state Harbor System to be relatively consistent. Honolulu Harbor tidal fluctuations range between 0.27 feet to 2.72 feet based on monthly Mean Sea Level (MSL) data from 1905 to 2006 reflecting a change of 0.49 feet in 100 years. The consistent range in tidal changes and the Hawaii 2017 Climate Report provides historical as well as forecasting information for planning purposes not only for the Harbor System but also for its cargo operators to include in their asset replacement plans. For example, at the end of a vessel's economic useful life of 20 to 30 years, cargo operators should include adaptive ballasting and hull design systems or innovative cargo loading and unloading systems to address the effects of sea level rise by 2100.

The Harbor System is aware that extreme climate conditions and extreme weather events are included in the predictions of sea level rise in the 2017 Climate Report. Thus, the Harbors Division addressed sea level rise in the design of significant capital investments such as the new Kapalama Container Terminal by raising the height of

[1] Sweet, W. V. et al. Global and Regional Sea Level Rise Scenarios for the United States. NOAA Technical Report NOS CO -OPS 083 (2017).

these improvements an additional two feet above current levels. Investments such as connecting roadways, drainage planning, surrounding infrastructure and coastal improvements administered by the State's other political subdivisions are to be made by those entities to address these vulnerabilities.

In 2019, the Climate Commission created the Climate Ready Hawaii Initiative to support State and County government agencies and communities in maintaining best available information and best practices for sea level rise adaptation actions. The Climate Ready Hawaii Initiative includes a community resilience building planning process to help the State communities, counties and institutions of any scale to identify their top priorities based on climate change hazards cross-referenced to the strengths and vulnerabilities relative to infrastructure, social and environmental characteristics. The Climate Ready Hawaii Initiative would operationalize these climate change induced risks into standard operating procedures for departments and agencies to address on a statewide basis.

The Hawaiʻi Sea Level Rise Report includes descriptions of the anticipated Sea Level Rise Exposure Areas that would be impacted by 1.0, 2.0 and 3.2 feet of sea level rise, and estimates of impacts on private property in the State and on the State's public infrastructure. The Hawaiʻi Sea Level Rise Report predicted that if the State's sea levels were to rise 3.2 feet, over 25,800 acres of coastal and low lying land, one third of which is designated for urban use, and 38 miles of coastal roads in the Sea Level Rise Exposure Areas would be chronically flooded, and an estimated \$19 billion of economic loss would result. The Hawaiʻi Sea Level Rise Report also contains recommendations for reducing the impacts of sea level rise, erosion, and wave inundation.

While there is no predictability as to the frequency or severity of any future natural disasters, how they are influenced by climate change, nor their impact, individually or in the aggregate, that such disasters may have on the State, on its residents or on its overall financial condition, the Climate Commission, through its members, partners, and the Climate Ready Hawaii Initiative is incorporating climate change adaptation into day-to-day processes of governance to guard against uncertain future conditions made more uncertain by a changing climate—in short, to "climate proof" and "climate mainstream" to address climate change-induced risks and vulnerabilities.

The Department is unable to predict what additional laws and regulations or other environmental issues (including but not limited to air, water, hazardous substances and waste regulations) will be adopted or what effects such laws and regulations with have on the Harbor System, cargo carriers operating within the Harbor System, other Harbor System tenants, or the local economy. The effects, however, could be material. In particular, the Department cannot predict the timing or precise magnitude of adverse economic effects, including, without limitation, material adverse effects on the business operations or financial condition of the Harbor System and the local economy during the term of the Series 2020 Bonds. The effects of climate change may be mitigated by the Department's past and current management of its finances as a future predictor of its mitigation and adaptation strategies. The Harbor System can give no assurance about the net effects of those strategies or the investments to be made by others to address the additional adaptive mitigation or adaptation measures.

Cybersecurity

The Office of Enterprise Technology Services ("ETS") within the Hawaii State Department of Accounting and General Services provides governance for executive branch information technology projects and supports the management and operation of computer and telecommunication services to State agencies, including programs in fulfillment of statutorily mandated cybersecurity duties outlined under HRS. ETS is led by the Chief Information Officer of the State, with the advice of an eleven-member steering committee appointed by the Governor, Chief Justice, Senate President and Speaker of the House of Representatives. The Chief Information Security Officer reports to the Chief Information Officer and is responsible for establishing cybersecurity standards for the State executive branch and ensuring that system operations stay current with best practices.

Information technology systems, including those operated or utilized by the State, may be vulnerable to breaches, hacker attacks, computer viruses, physical or electronic break-ins or similar unintentional events or deliberate actions which can result in the unintended release and distribution of private or confidential data or other information or misappropriation of assets. The State has taken, and continues to take, measures to protect its information technology systems from the threat of such "cyberattacks," but there can be no assurance that the State or any department thereof or any of their vendors will not experience a breach. If such a breach occurs, the financial consequences could have an economic impact on the State, or on its ability to efficiently perform routine functions, or on the ability of the State or one or more of its component units to deliver services.

As discussed above, climate change produces both sea level rise and unpredictable weather patterns fueling tropical storms, hurricanes, storm surges, heavy rains, high winds, and floods. In many locations across the state, critical technology infrastructure, extensive aerial and underground network backbones, support facilities, and microwave radio towers, are susceptible to those severe weather outcomes today. Other infrastructure, such as computer servers, storage, network connections, electrical power and cooling equipment located below the ground water table in some locations, now face potential storm flooding and water backups, with future sea level rises increasing those flooding conditions. ETS has started to incrementally move that infrastructure to better protected locations and migrate to more flexible and less vulnerable environments, such as remote cloud computing services.

Investment Considerations

Maritime travel between the State and the United States Mainland, and between the islands of the State is effectively regulated by the Merchant Marine Act of 1920, 41 Stat. 988, commonly known as the Jones Act. This law requires goods and passengers shipped between United States ports be transported on ships built, owned and operated by United States citizens or permanent residents. Since most goods are shipped to the State from United States mainland ports, the effect of the Jones Act is to provide a barrier to entry that restricts the number of companies and vessels providing maritime service to the State and between the islands of the State.

INDEBTEDNESS

Bonds Issued Under the Certificate

As of June 30, 2020, $259,490,000 in aggregate principal amount of Bonds was outstanding under the Certificate. Such outstanding Bonds (except for the Refunded Bonds), together with the Series 2020 Bonds to be issued, will be equally and ratably payable from Net Revenues as provided in the Certificate. See APPENDIX C – "SUMMARY OF CERTAIN PROVISIONS OF THE CERTIFICATE." The Series 2010 Bonds are expected to be refunded with the proceeds of the Series 2020 Bonds. The Department expects to fund all its future capital improvement needs with proceeds of Bonds issued under the Certificate or with funds derived from sources other than indebtedness. The following is a summary of the Bonds issued and outstanding after July 1, 2020:

Year of Issue	Final Redemption Date	Interest Rate	Original Amount of Issue	Type of Bond Issuance	Principal Due After July 1, 2020
2010	July 1, 2040	3.00 – 5.75%	$ 201,390,000	Public Issuance	$ 145,180,000
2013	July 1, 2029	3.25%	23,615,000	Private Placement	13,345,000
2016	Jan. 1, 2031	1.99 – 3.09%	113,660,000	Direct Purchase	87,940,000
			$ 338,665,000		$ 246,465,000

Reimbursable General Obligation Bonds

As of June 30, 2020, $18,689,945 in aggregate principal amount of reimbursable General Obligation Bonds issued for the Harbor System was outstanding. These Bonds are General Obligation Bonds of the State, but since the proceeds of the Bonds were used to finance Harbor System improvements designed to be used by a now defunct interisland ferry system, the Department is required to reimburse the State General Fund for the payment of the principal of and interest on the reimbursable General Obligation Bonds from Revenues. Reimbursement is made from Revenues after payment of the costs of operation, maintenance and repair of the Harbor System, credits to the accounts in the Harbor Revenue Special Fund and payments for any other purpose within the jurisdiction, powers, duties and functions of the Department related to the Harbor System. See APPENDIX C – "SUMMARY OF CERTAIN PROVISIONS OF THE CERTIFICATE." The State does not presently intend to issue additional reimbursable General Obligation Bonds for the Harbor System.

Special Facility Revenue Bonds

The Legislature authorized $100,000,000 of Special Facility Revenue Bonds in Part II of Chapter 266, HRS. Pursuant to this authorization, three Series of Special Facility Revenue Bond Anticipation Notes and Special Facility Revenue Bonds were issued between 1981 and 1993 to finance or refinance the construction of certain container terminal facilities on Sand Island. All three issues have been retired in full. The State does not presently intend to issue any other Special Facility Revenue Bonds for facilities in the Harbor System.

Capital Lease Obligations

In September 2015, the Harbors Division entered into an energy savings performance contract and equipment lease purchase equipment agreement to fund the installation of $28,234.075 (including capitalized interest) of energy conservation measures at selected Harbors Division locations throughout the State. The capital lease obligation was $25,463,529 and $26,275,925 at June 30, 2019 and June 30, 2018, respectively.

Summary of Debt Service

Table 15 sets forth the principal and interest requirements to maturity for the outstanding Bonds issued under the Certificate, including the Series 2020 Bonds but excluding the Refunded Bonds, and the outstanding reimbursable general obligation bonds. The Department has no outstanding variable rate debt, and no exposure to derivative products.

TABLE 15
DEBT SERVICE TABLE

Period Ending June 30	Outstanding Bonds [(1)]	Series 2020A Bonds	Series 2020B Bonds	Series 2020C Bonds	Grand Total
2021	$ 28,246,247.51	$ --	$ --	$ --	$ 28,246,247.51
2022	15,753,657.25	9,233,911.39	3,648,663.35	4,608,353.33	33,244,585.32
2023	15,989,181.75	6,231,400.00	6,760,040.00	4,264,800.00	33,245,421.75
2024	12,673,212.00	6,231,400.00	4,536,370.00	4,264,800.00	27,705,782.00
2025	11,993,252.25	10,477,525.00	970,548.75	4,264,800.00	27,706,126.00
2026	11,975,862.75	11,463,900.00	--	4,264,800.00	27,704,562.75
2027	11,980,752.00	11,457,400.00	--	4,264,800.00	27,702,952.00
2028	11,986,443.50	11,451,525.00	--	4,264,800.00	27,702,768.50
2029	8,236,098.50	15,204,150.00	--	4,264,800.00	27,705,048.50
2030	8,241,353.25	9,408,025.00	--	10,056,300.00	27,705,678.25
2031	6,970,797.50	9,786,275.00	--	10,948,800.00	27,705,872.50
2032	--	16,754,000.00	--	10,950,000.00	27,704,000.00
2033	--	16,751,700.00	--	10,954,200.00	27,705,900.00
2034	--	16,752,900.00	--	10,950,900.00	27,703,800.00
2035	--	16,761,500.00	--	10,944,800.00	27,706,300.00
2036	--	16,756,700.00	--	10,945,300.00	27,702,000.00
2037	--	16,757,700.00	--	10,946,700.00	27,704,400.00
2038	--	16,753,500.00	--	10,948,400.00	27,701,900.00
2039	--	--	--	10,944,900.00	10,944,900.00
2040	--	--	--	10,950,500.00	10,950,500.00
2041	--	--	--	10,944,600.00	10,944,600.00
TOTAL	$144,046,858.26	$218,233,511.39	$ 15,915,622.10	$164,947,353.33	$543,143,345.08

[(1)] *Excludes the Refunded Bonds to be refunded by the Series 2020 Bonds. Includes principal and interest payments made on July 1, 2020. Totals may not add due to rounding.*

LITIGATION

The State is subject to litigation in connection with the day-to-day operations of the Harbor System by the Department. There is no litigation now pending or threatened restraining or enjoining the issuance and delivery of the Series 2020 Bonds or the power and authority of the Department to impose, prescribe or collect rates, rentals, fees or charges for the use and services of, and the facilities or commodities furnished by, the Harbor System, or in any manner questioning the power and authority of the Department to impose, prescribe or collect such rates, rentals, fees or charges or to issue and deliver the Series 2020 Bonds or affecting the validity of the Series 2020 Bonds.

TAX MATTERS

Series 2020A Bonds and Series 2020C Bonds

Summary of Bond Counsel Opinion. Katten Muchin Rosenman LLP, Bond Counsel, is of the opinion that under existing law, interest on the Series 2020A Bonds and the Series 2020C Bonds (collectively, the "Tax-Exempt Bonds") is not includable in the gross income of the owners thereof for federal income tax purposes. If there is continuing compliance with the applicable requirements of the Internal Revenue Code of 1986 (the "Code"), Bond Counsel is of the opinion that interest on the Tax-Exempt Bonds will continue to be excluded from the gross income of the owners thereof for federal income tax purposes. In addition, interest on the Series 2020A Bonds is an item of tax preference for purposes of the federal alternative minimum tax, but interest on the Series 2020C Bonds is not an item of tax preference for purposes of the alternative minimum tax. Bond Counsel expresses no opinion as to the exclusion from gross income for federal income tax purposes of interest on any of the Series 2020A Bonds or the Series 2020C Bonds for any period during which such Series 2020A Bond or Series 2020C Bond is held by a person who is a "substantial user" of the facilities financed or refinanced with the proceeds of such bond or a "related person" (each as defined in Section 147(a) of the Code). In the further opinion of Bond Counsel, under the existing statutes, interest on the Tax-Exempt Bonds is exempt from all taxation by the State and any county or any political subdivision thereof, except inheritance, transfer and estate taxes and except to the extent the franchise tax imposed by the laws of the State on banks and other financial institutions may be measured with respect to the Tax-Exempt Bonds or income therefrom.

Exclusion from Gross Income: Requirements. The Code contains certain requirements that must be satisfied from and after the date of issuance of the Tax-Exempt Bonds in order to preserve the exclusion from gross income for federal income tax purposes of interest on the Tax-Exempt Bonds. These requirements relate to the use and investment of the proceeds of the Tax-Exempt Bonds, the payment of certain amounts to the United States, the security and source of payment of the Tax-Exempt Bonds and the use of the property financed with the proceeds of the Tax-Exempt Bonds. Among these specific requirements are the following:

(a) Investment Restrictions. Except during certain "temporary periods," proceeds of the Tax-Exempt Bonds and investment earnings thereon (other than amounts held in a reasonably required reserve or replacement fund, if any, or as part of a "minor portion") may generally not be invested in investments having a yield that is materially higher than the yield on the Tax-Exempt Bonds.

(b) Rebate of Permissible Arbitrage Earnings. Earnings from the investment of the "gross proceeds" of the Tax-Exempt Bonds in excess of the earnings that would have been realized if such investments had been made at a yield equal to the yield on the Tax-Exempt Bonds are required to be paid to the United States at periodic intervals. For this purpose, the term "gross proceeds" includes the original proceeds of the Tax-Exempt Bonds, amounts received as a result of investing such proceeds and amounts to be used to pay debt service on the Tax-Exempt Bonds.

(c) Restrictions on Ownership and Use. The Code includes restrictions on the ownership and use of the facilities financed with the proceeds of the Tax-Exempt Bonds. Such provisions may restrict future changes in the use of any property financed with the proceeds of the Tax-Exempt Bonds.

Covenants to Comply. The State covenants in the Certificate to comply with the requirements of the Code relating to the exclusion from gross income for federal income tax purposes of interest on the Tax-Exempt Bonds.

Risk of Non Compliance. In the event that the State fails to comply with the requirements of the Code, interest on the Tax-Exempt Bonds may become includable in the gross income of the owners thereof for federal income tax purposes retroactively to the date of issue. In such event, the Certificate does not require acceleration of payment of principal of or interest on the Tax-Exempt Bonds or payment of any additional interest or penalties to the owners of the Tax-Exempt Bonds.

Federal Income Tax Consequences. Pursuant to Section 103 of the Code, interest on the Tax-Exempt Bonds is not includible in the gross income of the owners thereof for federal income tax purposes. However, the Code contains a number of other provisions relating to the treatment of interest on the Tax-Exempt Bonds that may affect the taxation of certain types of owners, depending on their particular tax situations. Some of the potentially applicable federal income tax provisions are described in general terms below. PROSPECTIVE PURCHASERS SHOULD CONSULT THEIR TAX ADVISORS CONCERNING THE PARTICULAR FEDERAL INCOME TAX CONSEQUENCES OF THEIR OWNERSHIP OF THE TAX-EXEMPT BONDS.

(a) Cost of Carry. Owners of the Tax-Exempt Bonds will generally be denied a deduction for otherwise deductible interest on any debt that is treated for federal income tax purposes as incurred or continued to purchase or carry the Tax-Exempt Bonds. Financial institutions are denied a deduction for their otherwise allowable interest expense in an amount determined by reference to their adjusted basis in the Tax-Exempt Bonds.

(b) Corporate Owners. Interest on the Tax-Exempt Bonds is taken into account in computing earnings and profits of a corporation and consequently may be subject to federal income taxes based thereon. Thus, for example, interest on the Tax-Exempt Bonds is taken into account in computing the branch profits tax imposed on certain foreign corporations, the passive investment income tax imposed on certain S corporations, and the accumulated earnings tax.

(c) Individual Owners. Receipt of interest on the Tax-Exempt Bonds may increase the amount of social security and railroad retirement benefits included in the gross income of the recipients thereof for federal income tax purposes.

(d) Certain Blue Cross or Blue Shield Organizations. Receipt of interest on the Tax-Exempt Bonds may reduce a special deduction otherwise available to certain Blue Cross or Blue Shield organizations.

(e) Property or Casualty Insurance Companies. Receipt of interest on the Tax-Exempt Bonds may reduce otherwise deductible underwriting losses of a property or casualty insurance company.

(f) Foreign Personal Holding Company Income. A United States shareholder of a foreign personal holding company may realize taxable income to the extent that interest on the Tax-Exempt Bonds held by such a company is properly allocable to the shareholder.

(g) Information Reporting and Back-up Withholding. Payments of interest on the Tax-Exempt Bonds, are generally subject to IRS Form 1099-INT information reporting requirements. If a Tax-Exempt Bonds owner is subject to backup withholding under those requirements, then payments of interest will also be subject to backup withholding. Those requirements do not affect the exclusion of such interest from gross income for federal income tax purposes. Any amounts withheld pursuant to backup withholding would be allowed as a refund or a credit against the owner's Federal income tax once the required information is furnished to the Internal Revenue Service.

Tax-Exempt Bonds Purchased at a Premium or at a Discount. The difference (if any) between the initial price at which a substantial amount of each maturity of each Series of the Tax-Exempt Bonds is sold to the public (the “Offering Price”) and the principal amount payable at maturity of such Tax-Exempt Bonds is given special treatment for federal income tax purposes. If the Offering Price is higher than the maturity value of a Tax-Exempt

Bond, the difference between the two is known as "bond premium;" if the Offering Price is lower than the maturity value of a Tax-Exempt Bond, the difference between the two is known as "original issue discount."

Bond premium and original issue discount are amortized over the term of a Tax-Exempt Bond on the basis of the owner's yield from the date of purchase to the date of maturity, compounded at the end of each accrual period of one year or less with straight-line interpolation between compounding dates, as provided more specifically in the Income Tax Regulations. The amount of bond premium accruing during each period is treated as an offset against interest paid on the Tax-Exempt Bond and is subtracted from the owner's tax basis in the Tax-Exempt Bond. The amount of original issue discount accruing during each period is treated as interest that is excludable from the gross income of the owner of such Tax-Exempt Bond for federal income tax purposes, to the same extent and with the same limitations as current interest, and is added to the owner's tax basis in the Tax-Exempt Bond. A Tax-Exempt Bond's adjusted tax basis is used to determine whether, and to what extent, the owner realizes taxable gain or loss upon the disposition of the Tax-Exempt Bond (whether by reason of sale, acceleration, redemption prior to maturity or payment at maturity of the Tax-Exempt Bond).

Owners who purchase Tax-Exempt Bonds at a price other than the Offering Price, after the termination of the initial public offering or at a market discount should consult their tax advisors with respect to the tax consequences of their ownership of the Tax-Exempt Bonds. In addition, owners of Tax-Exempt Bonds should consult their tax advisors with respect to the state and local tax consequences of owning the Tax-Exempt Bonds. Under the applicable provisions of state or local income tax law, bond premium and original issue discount may give rise to taxable income at different times and in different amounts than they do for federal income tax purposes.

Change of Law. The opinions of Bond Counsel and the descriptions of the tax law contained in this Official Statement are based on statutes, judicial decisions, regulations, rulings, and other official interpretations of law in existence on the date the Tax-Exempt Bonds are issued. There can be no assurance that such law or the interpretation thereof will not be changed or that new provisions of law will not be enacted or promulgated at any time while the Tax-Exempt Bonds are outstanding in a manner that would adversely affect the value or the tax treatment of owners

State and Local Income Tax Consequences. In the opinion of Bond Counsel, interest on the Tax-Exempt Bonds is exempt from all taxation by the State and any county or any political subdivision thereof, except inheritance, transfer and estate taxes and except to the extent the franchise tax imposed by the laws of the State on banks and other financial institutions may be measured with respect to the Tax-Exempt Bonds or income therefrom. Other than the foregoing, Bond Counsel expresses no opinion as to the State and local tax consequences of the ownership of, accrual or receipt of interest on, and the disposition of, the Tax-Exempt Bonds.

PROSPECTIVE INVESTORS ARE URGED TO CONSULT THEIR OWN TAX ADVISORS AS TO THE APPLICATION AND EFFECT OF STATE, LOCAL, FOREIGN AND OTHER TAX LAWS ON THE PURCHASE, OWNERSHIP AND DISPOSITION OF TAX-EXEMPT BONDS.

Series 2020B Bonds

The following is a summary of the principal United States federal income tax consequences of ownership of the Series 2020B Bonds (the "Taxable Bonds"). This summary deals only with the Taxable Bonds held as capital assets by initial purchasers, and not with special classes of holders, such as dealers in securities or currencies, banks, tax-exempt organizations, life insurance companies, persons that hold the Taxable Bonds as a hedge or as hedged against currency risks or that are part of a straddle or conversion transaction, or persons whose functional currency is not the United States dollar.

The Code contains a number of provisions relating to the taxation of the Taxable Bonds (including, but not limited to, the treatment of and accounting for interest, premium, and market discount thereon, gain from the disposition thereof and withholding tax on income therefrom) that may affect the taxation of certain owners, depending on their particular tax situations. Prospective purchasers of the Taxable Bonds should consult their own tax advisors concerning the consequences, in their particular circumstances, under the Code and the laws of any other taxing jurisdiction, of ownership of the Taxable Bonds.

Notwithstanding the information below, it should be noted that certain taxpayers that are required to prepare certified financial statements or file financial statements with certain regulatory or governmental agencies may be required to recognize income, gain and loss with respect to the Taxable Bonds at the time such income, gain or loss is recognized on such financial statements instead of under the rules described below.

United States Federal Income Tax Considerations for United States Holders of Taxable Bonds.

Payments of Interest to United States Holders. Interest on the Taxable Bonds will be taxable to a United States Holder (as defined below) as ordinary income at the time it is received or accrued, depending on the holder's method of accounting for tax purposes in accordance with generally applicable principles.

The term "United States Holder" refers to a beneficial owner of a Taxable Bond for United States federal income tax law purposes and that is:

- a citizen or resident of the United States;

- a corporation or partnership which is created or organized in or under the laws of the United States or of any political subdivision thereof;

- an estate the income of which is subject to United States federal income taxation regardless of its source; or

- a trust if (1) a court within the United States is able to exercise primary supervision over the administration of the trust and one or more United States persons have the authority to control all substantial decisions of the trust or (2) the trust was in existence on August 10, 1996 and properly elected to continue to be treated as a United States person.

If a partnership holds the Taxable Bonds, the United States federal income tax treatment of a partner will generally depend on the status of the partner and the tax treatment of the partnership. A partner in a partnership holding the Taxable Bonds should consult its tax advisor regarding the consequences to the United States federal income tax treatment of an investment in the Taxable Bonds.

Sale and Retirement of the Taxable Bonds. Unless a non-recognition provision of the Code applies, United States Holders of the Taxable Bonds must recognize any gain or loss on the sale, redemption, retirement or other disposition of their Taxable Bonds. The gain or loss is measured by the difference between the amount realized on the disposition of a Taxable Bonds (except to the extent attributable to accrued but unpaid interest on the Taxable Bonds which will be taxed in the manner described above under "Payments of Interest to United States Holders" above) and the United States Holder's adjusted tax basis in the Taxable Bond. Such gain or loss is capital gain or loss, except to the extent of accrued market discount not previously included in income, and is long term capital gain or loss if at the time of disposition such Taxable Bond has been held for more than one year.

Unearned Income Medicare Contribution Tax. A 3.8% Medicare contribution tax is imposed on the "net investment income" of certain United States individuals and on the undistributed "net investment income" of certain estates and trusts. Among other items, "net investment income" generally includes interest and certain net gain from the disposition of property (such as the Taxable Bonds), less certain deductions.

United States Federal Income Tax Considerations for Non-U.S. Holders of Taxable Bonds.

The term "Non-U.S. Holder" refers to any beneficial owner of a Taxable Bond who or which is not a United States Holder.

Withholding Tax on Payments of Principal and Interest on Bonds held by Non-U.S. Holders. Generally, subject to the discussion of FATCA below, payments of principal and interest on a Taxable Bond held by a Non-U.S. Holder will not be subject to United States federal withholding tax, provided that in the case of an interest payment:

- the Non-U.S. Holder owning the Taxable Bond is not a bank to which the Taxable Bonds constitute an extension of credit made pursuant to a loan agreement entered into in the ordinary course of its trade or business; and

- either (A) the Non-U.S. Holder owning the Taxable Bond certifies to the applicable payor or its agent, under penalties of perjury on an IRS Form W-8BEN, IRS Form W-8BEN-E or a suitable substitute form, that such owner is not a United States person and provides such owner's name and address or (B) a securities clearing organization, bank or other financial institution, that holds customers' securities in the ordinary course of its trade or business (a "financial institution") and holds the Taxable Bond, certifies under penalties of perjury that such an IRS Form W-8BEN, IRS Form W-8BEN-E or suitable substitute form has been received from the beneficial owner by it or by a financial institution between it and the beneficial owner and furnishes the payor with a copy thereof.

If the beneficial owner is entitled to the benefit of an income tax treaty to which the United States is a party, such owner can obtain an exemption from or reduction of income and withholding tax (depending on the terms of the treaty) by providing to the withholding agent a properly completed IRS Form W-8BEN, IRS Form W 8BEN-E, or any successor form, before interest is paid. However, neither exemption nor reduced withholding will be available if the withholding agent has actual knowledge or reason to know that the form is false.

Except to the extent otherwise provided under an applicable tax treaty, a Non-U.S. Holder owning a Taxable Bond generally will be taxed in the same manner as a United States Holder with respect to interest payments on a Taxable Bond if such interest is effectively connected with such owner's conduct of a trade or business in the United States. Effectively connected interest received by a corporate Non-U.S. Holder may also, under certain circumstances, be subject to an additional "branch profits tax" at a 30% rate (or, if applicable, a lower treaty rate), subject to certain adjustments. Such effectively connected interest will not be subject to withholding tax if the holder delivers an IRS Form W-8ECI to the payor.

Gain on Disposition of the Taxable Bonds by a Non-U.S. Holder. A Non-U.S. Holder owning a Taxable Bond generally will not be subject to United States federal income tax on gain realized on the sale, exchange or redemption of a Taxable Bond unless:

- such owner is an individual present in the United States for 183 days or more in the taxable year of such sale, exchange or redemption and either (A) such owner has a "tax home" in the United States and certain other requirements are met, or (B) the gain from the disposition is attributable to such owner's office or other fixed place of business in the United States; or

- the gain is effectively connected with such owner's conduct of a trade or business in the United States.

Taxation of Payments under FATCA to Foreign Financial Institutions and Certain Other Non-U.S. Holders that are Foreign Entities. A 30% withholding tax generally will apply to payments of interest on, and after December 31, 2018, on gross proceeds from the disposition of, the Taxable Bonds that are made to Non-U.S. Holders that are financial institutions and certain non-financial entities. Such withholding tax, imposed under sections 1471 through 1474 of the Code, or FATCA, generally will not apply where such payments are made to (i) a Non-U.S. Holder that is a financial institution that enters into an agreement with the IRS to, among other requirements, undertake to identify accounts held by certain United States persons or U.S.-owned foreign entities, report annually certain information about such accounts and withhold tax as may be required by such agreement (or otherwise complies with an applicable intergovernmental agreement with respect to FATCA), or (ii) a Non-U.S. Holder that is a non-financial entity that certifies it does not have any substantial United States owners or furnishes identifying information regarding each substantial United States owner. A Non-U.S. Holder generally will be required to provide information with respect to its status for FATCA purposes, generally on the appropriate IRS Form W-8 or any successor form, to avoid withholding taxes under FATCA. Prospective investors should consult their own tax advisors regarding the application and requirements of these information reporting and withholding provisions under FATCA.

If any amount of, or in respect of, U.S. withholding tax were to be deducted or withheld from payments on the Bonds as a result of a failure of an investor (or by an institution through which an investor holds the Bonds) to comply with FATCA, none of the State, the Department, the Harbors Division or any other person would, pursuant to the terms of the Bonds, be required to pay additional amounts with respect to the Bonds as a result of the deduction or withholding of such tax.

U.S. Federal Estate Tax. A Taxable Bond held by an individual who at the time of death is not a citizen or resident of the United States (as specially defined for United States federal estate tax purposes) is not subject to United States federal estate tax if at the time of the individual's death, payments with respect to such Taxable Bond are not effectively connected with the conduct by such individual of a trade or business in the United States.

Backup Withholding and Information Reporting.

United States Holders. Information reporting applies to payments of interest on the Taxable Bonds, or the proceeds of the sale or other disposition of the Taxable Bonds with respect to certain non-corporate United States holders, and backup withholding may apply unless the recipient of such payment supplies a taxpayer identification number, certified under penalties of perjury, as well as certain other information or otherwise establishes an exemption from backup withholding. Any amounts withheld under the backup withholding rules may be allowed as a refund or a credit against that holder's United States federal income tax liability provided the required information is furnished to the IRS.

Non-U.S. Holders. Backup withholding and information reporting on Form 1099 does not apply to payments of principal and interest on the Taxable Bonds to a Non-U.S. Holder provided the Non U.S. Holder provides the certification described above under "United States Federal Income Tax Considerations for Non-U.S. Holders of Taxable Bonds -Withholding Tax on Payments of Principal and Interest on Bonds held by Non-U.S. Holders" or otherwise establishes an exemption (provided that neither the City nor its agent has actual knowledge that the holder is a United States person or that the conditions of any other exemptions are not in fact satisfied). Interest payments made to a Non-U.S. Holder may, however, be reported to the IRS and to such Non-U.S. Holder on Form 1042 S.

Information reporting and backup withholding generally do not apply to a payment of the proceeds of a sale of Taxable Bonds effected outside the United States by a foreign office of a foreign broker. However, information reporting requirements (but not backup withholding) will apply to a payment of the proceeds of a sale of Taxable Bonds effected outside the United States by a foreign office of a broker if the broker (i) is a United States person, (ii) derives 50% or more of its gross income for certain periods from the conduct of a trade or business in the United States, (iii) is a "controlled foreign corporation" as to the United States, or (iv) is a foreign partnership that, at any time during its taxable year is 50% or more (by income or capital interest) owned by United States persons or is engaged in the conduct of a United States trade or business, unless in any such case the broker has documentary evidence in its records that the holder is a Non-U.S. Holder (and such broker has no actual knowledge to the contrary) and certain conditions are met, or the holder otherwise establishes an exemption. Payment by a United States office of a broker of the proceeds of a sale of Taxable Bonds will be subject to both backup withholding and information reporting unless the holder certifies its non-United States status under penalties of perjury or otherwise establishes an exemption.

Any amounts withheld under the backup withholding rules may be allowed as a refund or a credit against that holder's United States federal income tax liability provided the required information is furnished to the IRS.

Change of Law. The opinion of Bond Counsel and the descriptions of the tax law contained in this Official Statement are based on statutes, judicial decisions, regulations, rulings and other official interpretations of law in existence on the date the Taxable Bonds are issued. There can be no assurance that such law or the interpretation thereof will not be changed or that new provisions of law will not be enacted or promulgated at any time while the Taxable Bonds are outstanding in a manner that would adversely affect the value or the tax treatment of ownership of the Taxable Bonds.

State and Local Considerations. Interest on the Taxable Bonds is exempt from all taxation by the State of Hawaii or any county or other political subdivision thereof, except inheritance, transfer, estate and certain franchise taxes. Ownership of the Taxable Bonds may result in other state and local tax consequences to certain taxpayers, and Bond Counsel expresses no opinion regarding any such consequences arising with respect to the Taxable Bonds.

Prospective purchasers of the Taxable Bonds should consult their tax advisors regarding the applicability of any such state and local taxes.

APPROVAL OF LEGAL PROCEEDINGS

The validity of the Series 2020 Bonds and certain other legal matters are subject to the approving opinion of Katten Muchin Rosenman LLP, Bond Counsel for the State. A copy of the proposed form of opinion of Bond Counsel is set forth in APPENDIX E. Bond Counsel undertakes no responsibility for the accuracy, completeness or fairness of this Official Statement. Certain legal matters will be passed upon for the State by the Attorney General of the State and for the Underwriter by its counsel, Dentons US LLP, Honolulu, Hawaii.

RATINGS

Fitch Ratings, Inc. and Moody's Investors Service have assigned ratings of "AA- (Stable Outlook)," and "Aa3 (Stable Outlook)," respectively, to the Series 2020 Bonds. Such ratings reflect only the respective views of such organizations, and an explanation of the significance of such ratings may be obtained from the rating agency furnishing the same, at the following addresses: Fitch, Inc., One State Street Plaza, New York, New York 10004, and Moody's Investors Service, Inc., 99 Church Street, New York, New York 10007. There is no assurance that such ratings will continue for any given period of time or that they will not be revised or withdrawn entirely by such rating agencies if, in the judgment of such rating agencies, circumstances so warrant. Any such downward revision or withdrawal of such ratings may have an effect on the market price of the Series 2020 Bonds.

UNDERWRITING

BofA Securities, Inc.(the "Underwriter"), has agreed to purchase the Series 2020 Bonds at a price equal to the par amount of $266,550,000.00, plus net original issue premium of $51,688,750.75, less an underwriting discount of $650,039.78, resulting in a purchase price of $317,588,710.97. The purchase contract relating to the Series 2020 Bonds (the "Contract of Purchase") provides that the Underwriter will purchase all the Series 2020 Bonds if any are purchased, the obligation to make such purchase being subject to certain terms and conditions set forth therein, including the approval of certain legal matters by counsel and certain other conditions. The initial public offering prices may be changed from time to time by the Underwriter. The Underwriter may offer and sell the Series 2020 Bonds to certain dealers (including dealers depositing the Series 2020 Bonds into unit investment trusts certain of which may be sponsored or managed by the Underwriter) and others at prices lower than the public offering prices stated on the first page hereof.

BofA Securities, Inc., the Underwriter of the Series 2020 Bonds, has entered into a distribution agreement with its affiliate Merrill Lynch, Pierce, Fenner & Smith Incorporated ("MLPF&S"). As part of this arrangement, BofA Securities, Inc. may distribute securities to MLPF&S, which may in turn distribute such securities to investors through the pricing advisor network of MLPF&S. As part of this arrangement, BofA Securities, Inc. may compensate MLPF&S as a dealer for their selling efforts with respect to the Series 2020 Bonds.

The Underwriter and its affiliates are full service financial institutions engaged in various activities, which may include sales and trading, commercial and investment banking, advisory, investment management, investment research, principal investment, hedging, market making, brokerage and other financial and non-financial activities and services. In the various course of their various business activities, the Underwriter and its affiliates, officers, directors and employees may purchase, sell or hold a broad array of investments and actively traded securities, derivatives, loans, commodities, currencies, credit default swaps and other financial instruments for their own account and for the accounts of their customers, and such investment and trading activities may involve or relate to assets, securities and/or instruments of the State (directly, as collateral securing other obligations or otherwise) and/or persons and entities with relationships with the State. The Underwriter and its affiliates may also communicate independent investment recommendations, market color or trading ideas and/or publish or express independent research views in respect of such assets, securities or instruments and may at any time hold, or recommend to clients that they should acquire, long and/or short positions in such assets, securities and instruments; provided, however, that potential investors are advised that the offering of the Bonds is made only by means of the Official Statement. No dealer, broker, salesperson or other person has been authorized by the State to give any information or to make any representation other than as contained in the Official Statement.

MUNICIPAL ADVISOR

Hilltop Securities, Inc. is employed as Municipal Advisor to the Department in connection with the issuance of the Series 2020 Bonds. The Municipal Advisor's fee for services rendered with respect to the sale of the Series 2020 Bonds is contingent upon the issuance and delivery of the Series 2020 Bonds. Hilltop Securities, Inc. in its capacity as Municipal Advisor, does not assume any responsibility for the information, covenants and representations contained in any of the legal documents with respect to the federal income tax status of the Series 2020 Bonds, or the possible impact of any present, pending or future actions taken by any legislative or judicial bodies.

The Municipal Advisor to the Department has provided the following sentence for inclusion in this Official Statement. The Municipal Advisor has reviewed the information in this Official Statement in accordance with, and as part of, its responsibilities to the State and, as applicable, to investors under the federal securities laws as applied to the facts and circumstances of this transaction, but the Municipal Advisor does not guarantee the accuracy or completeness of such information.

LEGALITY FOR INVESTMENT

The Series 2020 Bonds are legal investments for the funds of all public officers and bodies and all political subdivisions of the State, and for the funds of all insurance companies and associations, banks, savings banks, savings institutions, including building or savings and loan associations, trust companies, personal representatives, guardians, trustees and all other persons and fiduciaries in the State who are regulated by law as to the character of their investment.

The Series 2020 Bonds may be deposited by banks with the Director of Finance as security for State moneys deposited in such banks.

CONTINUING DISCLOSURE

In order to assist the Underwriter in complying with Rule 15c2-12 promulgated by the Securities and Exchange Commission ("Rule 15c2-12"), the Department will enter into a Continuing Disclosure Certificate, the form of which is set forth in APPENDIX F (the "Continuing Disclosure Certificate"), to provide to the Municipal Securities Rulemaking Board on an annual basis certain financial and operating data concerning the Department, financial statements, notice of certain events if material, and certain other notices, all as described in the Continuing Disclosure Certificate. The undertaking is an obligation of the Department that is enforceable as described in the Continuing Disclosure Certificate. Beneficial Owners of the Bonds are third party beneficiaries of the Continuing Disclosure Certificate. The execution of the Continuing Disclosure Certificate is a condition precedent to the obligation of the Underwriter to purchase the Series 2020 Bonds.

The Department has not failed to comply with the requirements of Rule 15c2-12 in any material respect in the previous five years.

FINANCIAL STATEMENTS

The financial statements of the Harbors Division as of and for the years ended June 30, 2019 and 2018 are included as APPENDIX A. Such financial statements were audited by KKDLY LLC, independent auditors, as stated in their report appearing therein. KKDLY LLC is not associated with and has no responsibility for the contents of this Official Statement other than their report. The Harbors Division has neither requested nor obtained the consent of KKDLY LLC to include their report, and such firm has performed no procedures subsequent to rendering their report. KKDLY LLC is currently conducting its audit of the financial statements of the Harbors Division for the fiscal year ended June 30, 2020. The results of the audit may become available prior to delivery of the Series 2020 Bonds, and if so completed, the report will be distributed to purchasers. There can be no assurance that the information in APPENDIX A is indicative of the current financial position or future financial performance of the Harbors Division.

MISCELLANEOUS

The references herein to Acts of the Legislature or the Certificate (including the supplements thereto) do not purport to be complete and are subject to the detailed provisions thereof to which reference is hereby made. The Department has provided the information in this Official Statement relating to the Harbors Division, and other matters, as indicated.

As far as any statements made in this Official Statement involving matters of opinion or of estimates, whether or not so expressly stated, they are set forth as such and not as representations of fact, and no representation is made that any of the estimates will be realized. Neither this Official Statement nor any statement which may have been made orally or in writing is to be construed as a contract with the holders of any of the Series 2020 Bonds.

DEPARTMENT OF TRANSPORTATION
STATE OF HAWAII

By ______________________________
Jade T. Butay, Director

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APPENDIX A

AUDITED FINANCIAL STATEMENTS

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KDLY LLC
CERTIFIED PUBLIC ACCOUNTANTS

Harbors Division
Department of Transportation
State of Hawaii

(An Enterprise Fund of the State of Hawaii)

Financial Statements and Supplementary Information
(With Independent Auditors' Report Thereon)

June 30, 2019 and 2018

Submitted by

THE AUDITOR
STATE OF HAWAII

Harbors Division
Department of Transportation
State of Hawaii
(An Enterprise Fund of the State of Hawaii)

Financial Statements and Supplementary Information

June 30, 2019 and 2018

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Harbors Division
Department of Transportation
State of Hawaii
(An Enterprise Fund of the State of Hawaii)

Financial Statements and Supplementary Information

June 30, 2019 and 2018

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PART I

INTRODUCTION SECTION

KDLY LLC
CERTIFIED PUBLIC ACCOUNTANTS

November 27, 2019

The Auditor
State of Hawaii:

We have completed our audits of the financial statements of the Harbors Division, Department of Transportation, State of Hawaii (the Harbors Division), an enterprise fund of the State of Hawaii, as of and for the years ended June 30, 2019 and 2018. We transmit herewith our independent auditors' report containing our opinion on those financial statements and our report on internal control over financial reporting and on compliance and other matters based on an audit of financial statements performed in accordance with *Government Auditing Standards.*

Audit Objectives

The objectives of the audits were as follows:

1. To provide an opinion on the fair presentation of the Harbors Division's financial statements in accordance with accounting principles generally accepted in the United States of America.

2. To consider the Harbors Division's internal control over financial reporting in order to determine our auditing procedures for the purpose of expressing our opinion on the financial statements.

3. To perform tests of the Harbors Division's compliance with certain provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could have a direct and material effect on the determination of financial statement amounts.

Scope of Audit

We performed our audits of the Harbors Division's financial statements as of and for the years ended June 30, 2019 and 2018, in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States.

As part of the audits of the Harbors Division's financial statements, we considered the Harbors Division's internal control over financial reporting to determine our auditing procedures for the purpose of expressing our opinion on the financial statements. We also performed tests of the Harbors Division's compliance with certain provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could have a direct and material effect on the determination of financial statement amounts.

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P: 808.521.3962 | F: 808.531.3217 | www.kkdly.com

Organization of Report

This report has been organized into three parts as follows:

1. The Introduction Section describes briefly the objectives and scope of our audits and the organization and contents of this report.

2. The Financial Section includes management's discussion and analysis, the Harbors Division's financial statements and the related notes, and other supplementary information as of and for the years ended June 30, 2019 and 2018, and our independent auditors' report thereon.

3. The Internal Control and Compliance Section contains our independent auditors' report on the Harbors Division's internal control over financial reporting and on compliance and other matters based on an audit of the financial statements performed in accordance with *Government Auditing Standards*.

* * * * * * *

We would like to take this opportunity to express our appreciation for the courtesy and assistance extended to us by the personnel of the Harbors Division during the course of our engagement. Should you wish to discuss any of the matters contained herein, we will be pleased to meet with you at your convenience.

Very truly yours,

KKDLY LLC

PART II

FINANCIAL SECTION

KDLY LLC
CERTIFIED PUBLIC ACCOUNTANTS

Independent Auditors' Report

The Auditor
State of Hawaii:

Report on the Financial Statements

We have audited the accompanying financial statements of the Harbors Division, Department of Transportation, State of Hawaii (the Harbors Division), an enterprise fund of the State of Hawaii, which comprise the statements of net position as of June 30, 2019 and 2018, and the related statements of revenues, expenses, and changes in net position, and cash flows for the years then ended, and the related notes to financial statements.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditors' Responsibility

Our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditors' judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

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Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the Harbors Division as of June 30, 2019 and 2018, and the changes in its financial position and its cash flows for the years then ended in accordance with accounting principles generally accepted in the United States of America.

Emphasis of Matter

Relationship to the State of Hawaii

As discussed in Note 1 to the financial statements, the financial statements of the Harbors Division are intended to present the financial position, the changes in financial position and, where applicable, cash flows of only that portion of the business-type activities and proprietary fund type of the State of Hawaii that is attributable to the transactions of the Harbors Division. They do not purport to, and do not, present fairly the financial position of the State of Hawaii as of June 30, 2019 and 2018, and the changes in its financial position, or, where applicable, its cash flows for the years then ended, in accordance with accounting principles generally accepted in the United States of America. Our opinion is not modified with respect to this matter.

Other Matters

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audits of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Other Information

Our audits were conducted for the purpose of forming an opinion on the financial statements that collectively comprise the Harbors Division's basic financial statements. The supplementary information included in Schedules 1 through 4 is presented for purposes of additional analysis and is not a required part of the basic financial statements.

The supplementary information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the basic financial statements. Such information has been subjected to the auditing procedures applied in the audits of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the supplementary information is fairly stated, in all material respects, in relation to the basic financial statements as a whole.

Other Reporting Required by *Government Auditing Standards*

In accordance with *Government Auditing Standards*, we have also issued our report dated November 27, 2019, on our consideration of the Harbors Division's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is solely to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the Harbors Division's internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the Harbors Division's internal control over financial reporting and compliance.

KKDLY LLC

Honolulu, Hawaii
November 27, 2019

Harbors Division
Department of Transportation
State of Hawaii
(An Enterprise Fund of the State of Hawaii)

Management's Discussion and Analysis

June 30, 2019 and 2018

The following Management's Discussion and Analysis of the Harbors Division, Department of Transportation, State of Hawaii (the Harbors Division), an enterprise fund of the State of Hawaii, presents the reader with an introduction and overview of the Harbors Division's financial performance for the fiscal years ended June 30, 2019 and 2018. This discussion has been prepared by management and should be read in conjunction with the financial statements, and the notes thereto, which follow this section.

The statewide system of commercial harbors consists of ten harbors on six islands. The system plays a vital role in Hawaii's economy as the ports serve as the primary means for goods to enter and exit the state. Hawaii imports approximately 80% of what it consumes, the majority of which enters the state through the commercial harbors system.

The Harbors Division is self-sustaining. The Department of Transportation, State of Hawaii (DOT), is authorized to impose and collect rates and charges for the use of the harbors system and its properties to generate revenues to fund operating expenses. The Capital Improvements Program (CIP) is also funded by the Harbors Division's revenues and proceeds from the issuance of harbors system revenue bonds.

Using the Financial Statements

The Harbors Division is accounted for as a proprietary fund and utilizes the accrual basis of accounting. Under this method, revenues are recorded when earned and expenses are recorded at the time liabilities are incurred. The proprietary fund includes the enterprise fund type, which is used to account for the acquisition, operation, and maintenance of government facilities and services that are entirely or predominantly supported by user charges.

The Harbors Division's financial report includes three financial statements; the statements of net position, the statements of revenues, expenses, and changes in net position, and the statements of cash flows. The financial statements are prepared in accordance with accounting principles generally accepted in the United States of America (GAAP) as promulgated by the Governmental Accounting Standards Board (the GASB).

Financial Highlights

- The Harbors Division's net position at June 30, 2019 and 2018 amounted to $995.8 million and $890.1 million, respectively. Net position increased by $105.7 million in fiscal year 2019, an increase of 11.9%. Net position increased by $72.3 million or 8.8% in fiscal year 2018.

- Operating income amounted to $107.1 million in fiscal year 2019, an increase of $28.6 million or 36.4% as compared to 2018. Operating income amounted to $78.5 million in fiscal year 2018, an increase of $29.3 million or 59.6% as compared to 2017.

A summary of operations and changes in net position for the fiscal years ended June 30, 2019, 2018, and 2017 follows:

Table 1
Condensed Statements of Revenues, Expenses, and Changes in Net Position
(In Thousands)

	Year Ended June 30			2019-2018		2018-2017	
	2019	2018	2017	Increase (decrease)	% Change	Increase (decrease)	% Change
Operating revenues	$ 190,717	$ 165,111	$ 137,621	$ 25,606	15.5%	$ 27,490	20.0%
Nonoperating revenues	7,888	5,488	2,431	2,400	43.7	3,057	125.8
Total revenues	198,605	170,599	140,052	28,006	16.4	30,547	21.8
Depreciation expense	28,994	27,019	30,869	1,975	7.3	(3,850)	(12.5)
Other operating expenses	54,661	59,601	57,583	(4,940)	(8.3)	2,018	3.5
Nonoperating expenses	9,239	11,845	15,160	(2,606)	(22.0)	(3,315)	(21.9)
Total expenses	92,894	98,465	103,612	(5,571)	(5.7)	(5,147)	(5.0)
Income before capital contributions	105,711	72,134	36,440	33,577	46.5	35,694	98.0
Capital contributions	-	153	300	(153)	(100.0)	(147)	(49.0)
Change in net position	105,711	72,287	36,740	33,424	46.2	35,547	96.8
Net position, beginning of year	890,134	817,847	797,932	72,287	8.8	19,915	2.5
Net position, end of year	$ 995,845	$ 890,134	$ 834,672	$ 105,711	11.9	$ 55,462	6.6

Operating Revenues

Total operating revenues for fiscal year 2019 were $190.7 million compared to $165.1 million for fiscal year 2018. Total operating revenues for fiscal year 2018 were $165.1 million compared to $137.6 million for fiscal year 2017. Operating revenues consist primarily of service revenues and rental revenues, which accounted for 83.5% and 15.7%, respectively, in fiscal year 2019, and 82.4% and 16.8%, respectively, in fiscal year 2018, of the Harbors Division's total operating revenues.

Service Revenues

Service revenues are directly related to cargo and ship operations. Service revenues include wharfage, passenger fees, and other ship related fees. Service revenues in fiscal years 2019 and 2018 were $159.2 million and $136.0 million, respectively.

Service revenues for fiscal year 2019 increased $23.2 million or 17.0% as compared to fiscal year 2018. Wharfage revenue from cargo movements increased by $22.7 million from $118.2 million in fiscal year 2018 to $140.9 million in fiscal year 2019 due primarily to an increase of 15% in tariff rates that took effect on July 1, 2018. This increase was applied to the rates then in effect.

Service revenues for fiscal year 2018 increased $22.9 million or 20.2% as compared to fiscal year 2017. Wharfage revenue from cargo movements increased by $22.8 million from $95.4 million in fiscal year 2017 to $118.2 million in fiscal year 2018 due primarily to an increase of 15% in tariff rates that took effect on October 1, 2017. This increase was applied to the rates then in effect.

Passenger fee revenue increased by $0.8 million or 10.8% from $8.2 million in fiscal year 2018 to $9.0 million in fiscal year 2019. Passenger fee revenue in fiscal year 2018 remained relatively unchanged from fiscal year 2017. Passenger volumes (inbound and outbound) for fiscal year 2019 were approximately 1.2 million passengers, an increase of approximately 100,000 passengers from fiscal year 2018. Effective July 1, 2018, a flat fee for embark and debark fee was implemented at $15.00 per passenger for Honolulu Harbor, Oahu; and $8.00 per passenger at Kalaeloa Barbers Point Harbor, Oahu; Hilo and Kawaiahe Harbors, Hawaii; Kahului Harbor, Maui; Kaunakakai Harbor, Molokai; Kamalapau Harbor, Lanai; and Nawiliwili and Port Allen Harbors, Kauai. In fiscal year 2018, embark and debark fee was $7.50 per passenger for all ports.

Rental Revenues

Rental revenues for fiscal year 2019 were $29.9 million, an increase from fiscal year 2018 of approximately $2.2 million, due primarily to a 15% pipeline tariff rate increase, effective July 1, 2018.

Rental revenues for fiscal year 2018 were $27.7 million, an increase from fiscal year 2017 of approximately $4.8 million, due primarily to a 15% pipeline tariff rate increase, effective October 1, 2017.

Operating Expenses

Operating expenses, excluding depreciation expense, for fiscal years 2019 and 2018 amounted to $54.7 million and $59.6 million, respectively. The decrease in operating expenses for fiscal year 2019 in comparison to fiscal year 2018 of $4.9 million or 8.3% was due primarily to decreases in harbor operations costs of $6.4 million and maintenance costs of $2.2 million, offset by increases in State of Hawaii surcharge for central service expenses of $1.4 million and general administration expenses of $1.1 million.

Operating expenses, excluding depreciation expense, for fiscal years 2018 and 2017 amounted to $59.6 million and $57.6 million, respectively. The increase in operating expenses for fiscal year 2018 in comparison to fiscal year 2017 of $2.0 million or 3.5% was due primarily to increases in harbor operations costs of $1.8 million and State of Hawaii surcharge for central services expenses of $1.2 million, offset by a decrease in Department of Transportation general administrative expenses of $1.2 million.

Harbor operations costs for fiscal year 2019 decreased by $6.4 million as compared to fiscal year 2018 due primarily to a transfer of $5.3 million to the State Department of Budget and Finance in fiscal year 2018 to return certain payments for expenses required by Hawaii Statues. Harbor operations costs for fiscal year 2018 increased by $1.8 million as compared to fiscal year 2017 due primarily to an increase in expenses required by Hawaii statutes of $1.6 million.

A summary of the Harbors Division's net position at June 30, 2019, 2018, and 2017 are shown below:

Table 2
Condensed Statements of Net Position
(In Thousands)

	As of June 30			2019-2018		2018-2017	
	2019	2018	2017	Increase (decrease)	% Change	Increase (decrease)	% Change
Assets:							
Current and other assets	$ 446,902	$ 427,433	$ 446,802	$ 19,469	4.6%	$ (19,369)	(4.3%)
Capital assets, net	987,702	921,367	829,720	66,335	7.2	91,647	11.0
Total assets	1,434,604	1,348,800	1,276,522	85,804	6.4	72,278	5.7
Deferred outflows of resources	12,574	13,381	15,574	(807)	(6.0)	(2,193)	(14.1)
Liabilities:							
Current liabilities	71,036	72,976	57,103	(1,940)	(2.7)	15,873	27.8
Long-term liabilities	378,922	398,460	399,699	(19,538)	(4.9)	(1,239)	(0.3)
Total liabilities	449,958	471,436	456,802	(21,478)	(4.6)	14,634	3.2
Deferred inflows of resources	1,375	611	622	764	125.0	(11)	(1.8)
Net position:							
Net investment in capital assets	666,526	580,855	528,734	85,671	14.7	52,121	9.9
Restricted	177,801	204,790	143,999	(26,989)	(13.2)	60,791	42.2
Unrestricted	151,518	104,489	161,939	47,029	45.0	(57,450)	(35.5)
Total net position	$ 995,845	$ 890,134	$ 834,672	$ 105,711	11.9	$ 55,462	6.6

Net Position

The largest portion of the Harbors Division's net position (66.9% and 65.3% at June 30, 2019 and 2018, respectively), net investment in capital assets, represents its investment in capital assets (e.g., land, wharves, buildings, improvements, and equipment), less related indebtedness outstanding to acquire those capital assets. The Harbors Division uses these capital assets to provide services to its users of the harbors system; consequently, these assets are not available for future spending. Although the Harbors Division's net investment in its capital assets is reported net of related debt, the resources required to repay this debt must be provided annually from operations, since it is unlikely the capital assets themselves will be liquidated to pay for such liabilities.

The restricted portion of the Harbors Division's net position (17.9% and 23.0% at June 30, 2019 and 2018, respectively) represents bond reserve and other funds that are subject to external restrictions on how they may be used.

The unrestricted portion of the Harbors Division's net position (15.2% and 11.7% at June 30, 2019 and 2018, respectively) may be used to meet any of the Harbors Division's ongoing operations or to fund capital improvement projects.

The change in net position is an indicator of whether the overall fiscal condition of the Harbors Division improved or worsened during the fiscal year. The change in net position may serve over time as a useful indicator of the Harbor Division's financial position. Net position or the amount of total assets and deferred outflows of resources that exceed liabilities and deferred inflows of resources amounted to $995.8 million at June 30, 2019, an increase in net position of $105.7 million or 11.9% from 2018. Net position amounted to $890.1 million at June 30, 2018, an increase in net position of $72.3 million or 8.8% from 2017.

Capital Assets and Debt Administration

Capital Assets

As of June 30, 2019 and 2018, the Harbors Division had $987.7 million and $921.4 million, respectively invested in capital assets as shown in Table 3. There was a net increase (additions, deductions, and depreciation) of $66.3 million in 2019 from the prior year, and a net increase in 2018 of $91.6 million from 2017.

Table 3
Capital Assets
(In Thousands)

	As of June 30			2019-2018		2018-2017	
	2019	2018	2017	Increase (decrease)	% Change	Increase (decrease)	% Change
Land and land improvements	$ 626,053	$ 600,035	$ 566,713	$ 26,018	4.3%	$ 33,322	5.9%
Wharves	338,807	328,693	278,758	10,114	3.1	49,935	17.9
Other improvements	115,773	116,094	91,114	(321)	(0.3)	24,980	27.4
Buildings	125,782	116,912	113,923	8,870	7.6	2,989	2.6
Equipment	28,686	26,526	25,831	2,160	8.1	695	2.7
Total at cost	1,235,101	1,188,260	1,076,339	46,841	3.9	111,921	10.4
Less accumulated depreciation	(440,439)	(412,532)	(386,017)	(27,907)	6.8	(26,515)	6.9
	794,662	775,728	690,322	18,934	2.4	85,406	12.4
Construction in progress	193,040	145,639	139,398	47,401	32.5	6,241	4.5
Total capital assets, net	$ 987,702	$ 921,367	$ 829,720	$ 66,335	7.2	$ 91,647	11.0

Depreciation expense amounted to $29.0 million and $27.0 million for the fiscal years 2019 and 2018, respectively, an increase of $2.0 million.

Major capital asset additions to the statewide harbors system for the fiscal year ended June 30, 2019, included the following:

- $334,500 Pavement Repairs at Horizon Lines Container Yard, Honolulu Harbor, Oahu Island
- $497,700 Concrete Pavement & Waterline Repairs at Piers 5-6, Kalaeloa Barbers Pt, Oahu Island
- $540,000 Pavement Repairs at Piers 51C, 52&53 Container Yard, Honolulu Harbor, Oahu Island
- $276,600 Dredging at Pier 20, Honolulu Harbor, Oahu Island
- $283,900 Substructure and Bulkhead Repairs at Pier 33, Honolulu Harbor, Oahu Island
- $563,400 Repair Air Conditioning System Administration Building, Honolulu Harbor, Oahu Island
- $536,900 Renovate Pier 2 Passenger Terminal, Oahu Island
- $397,700 Repair Pier 11 Rooftop Air Conditioning, Honolulu Harbor, Oahu Island
- $883,000 Substructure Repairs at Pier 19-20, Honolulu Harbor, Oahu Island
- $1,021,900 Substructure Repairs to Pier 1, Hilo Harbor, Hawaii Island
- $3,784,200 Substructure Repairs at Pier 52-53, Honolulu Harbor, Oahu Island
- $3,777,300 Pier 19 Ferry Terminal Building, Honolulu Harbor, Oahu Island
- $25,460,800 Inter-Island Cargo Terminal Facility, Hilo Harbor, Hawaii Island
- $443,000 Repair Waterline at Pier 2, Kawaihae Harbor, Hawaii Island
- $312,800 Repairs at Pier 1 Shed, Kahului Harbor, Maui Island
- $267,000 Repair Maintenance Shop, Hilo Harbor, Hawaii Island
- $474,600 Installation of Lift Station and Force Main, Port Allen Harbor, Kauai Island

In addition to those capital asset additions, the Harbors Division is currently in the process of constructing the following projects statewide:

- $164.0 million, Construction of Kapalama Container Terminal Yard, Honolulu Harbor, Oahu Island

- $4.0 million Tower Demolition and Water System Improvements, Hilo Harbor, Hawaii Island

Major capital asset additions to the statewide harbors system for the fiscal year ended June 30, 2018, included the following:

- $32.8 million Parcel 4 situated in the former Kapalama Military Reservation area

- $5.6 million Shed Modifications/Improvements at Pier 1, Hilo Harbor, Hawaii Island

- $669,000 Substructure Repairs at Pier 34, Honolulu Harbor, Oahu Island

- $163,000, Pavement Repairs at Fort Armstrong, Honolulu Harbor, Oahu Island

- $320,100 Building and Yard Rehabilitation at Piers 34/35, Honolulu Harbor, Oahu Island

- $49.9 million Design and Construction of Pier 4 Inter-island Cargo Terminal Facility, Hilo Harbor, Hawaii Island

The Harbors Division is committed under contracts awarded for capital improvement projects totaling $157.8 million as of June 30, 2019.

Additional information regarding the Harbors Division's capital assets can be found in Note 4 to the financial statements.

Indebtedness

Harbors System Revenue Bonds and Reimbursable General Obligation Bonds

Harbor system revenue bonds have been issued pursuant to the *Certificate of the Director of Transportation Providing for the Issuance of 1997 State of Hawaii Harbor Revenue Bonds* (the 1997 Certificate) and are collateralized by a charge and lien on the Harbors Division's revenues. The proceeds from these bonds are used for harbor and waterfront improvements. As of June 30, 2019 and 2018, outstanding harbor system revenue bonds amounted to $276.8 million and $293.6 million, respectively.

Reimbursable general obligation bonds are general obligations of the State, but since the proceeds were used to finance the harbor and waterfront improvements, the Harbors Division is required to reimburse the State's general fund for the payment of principal and interest on such bonds. As of June 30, 2019 and 2018, outstanding reimbursable general obligation bonds amounted to $21.0 million and $23.3 million, respectively. There have been no issuances of reimbursable general obligation bonds to finance the harbor and waterfront improvements during fiscal years 2019 and 2018.

Additional information regarding the Harbors Division's indebtedness can be found in Notes 5, 6, 7, and 8 to the financial statements.

Credit Rating and Bond Insurance

All harbor system revenue bonds issued since 1997 through June 30, 2010 have been issued with bond insurance. A new reserve policy replaced all previously issued surety bonds and the portion of the reserve requirement allocable to the Series B of 2010 Revenue Bonds. The surety policy was amended effective August 2, 2013 to include the reserve requirement allocable to the Series A of 2013 Revenue Refunding Bonds. The Series A of 2010 Revenue Bonds are secured by a cash deposit of $11.5 million.

As of June 30, 2019, the underlying ratings for harbor system revenue bonds were as follows:

- Standard and Poor's AA-
- Moody's Investors Service A1
- Fitch IBCA, Inc. AA-

Ratings made by Standard and Poor's, Moody's Investors Service, and Fitch IBCA, Inc. may be changed, suspended, or withdrawn as a result of changes in, or unavailability of, information. Ratings provided by these rating companies are not "market ratings," as the ratings are not a recommendation to buy, hold, or sell any security.

Bond Covenants

Bond covenants allow the issuance of additional debt, on parity, as to a lien on the net revenues of the Harbors Division provided certain net revenue ratios are met. Net revenues of the Harbors Division must be at least 1.25 times the debt service requirements under the 1997 Certificate.

The Harbors Division coverage ratio as of June 30, 2019 was 5.61 under the 1997 Certificate as compared to the ratio of 4.40 as of June 30, 2018.

Request for Information

The financial report is designed to provide a general overview of the Harbors Division's finances for all interested parties. Questions concerning any of the information provided in this report or requests for additional information should be addressed in writing to the Harbors Administrator, State of Hawaii, Department of Transportation, Harbors Division, 79 S. Nimitz Highway, Honolulu, Hawaii, 96813, or by e-mail to *davis.k.yogi@hawaii.gov.*

Harbors Division
Department of Transportation
State of Hawaii
(An Enterprise Fund of the State of Hawaii)

Statements of Net Position
June 30, 2019 and 2018

Assets:	**2019**	**2018**
Current assets:		
Cash and cash equivalents	$ 226,978,777	$ 185,531,299
Receivables, less allowance for doubtful accounts of $4,631,849 in 2019 and $3,663,962 in 2018	16,926,233	15,059,672
Notes receivable, less allowance for doubtful accounts of $2,589,088 in 2019 and $2,976,588 in 2018	387,500	391,814
Interest receivable	8,027,586	3,396,636
Due from other State agencies	711,913	680,979
Other current assets	1,287,535	1,317,535
	254,319,544	206,377,935
Restricted assets:		
Cash and cash equivalents–restricted for debt service payments and reserve requirements	34,727,745	34,400,642
Total current assets	289,047,289	240,778,577
Noncurrent assets:		
Cash and cash equivalents–restricted for:		
Capital improvement projects	143,073,277	170,390,363
Other	14,781,842	16,263,858
	157,855,119	186,654,221
Capital assets:		
Nondepreciable assets	311,813,847	311,813,847
Depreciable assets, net	482,847,571	463,914,689
Construction in progress	193,040,322	145,638,900
Total capital assets, net	987,701,740	921,367,436
Total noncurrent assets	1,145,556,859	1,108,021,657
Total assets	1,434,604,148	1,348,800,234
Deferred Outflows of Resources:		
Related to pension	6,968,844	8,258,975
Related to other postemployment benefits	3,473,181	2,507,481
Deferred charge on refunding, net	2,131,466	2,614,579
Total deferred outflows of resources	12,573,491	13,381,035

Liabilities:	**2019**	**2018**
Current liabilities (payable from current assets):		
Accounts payable	$ 8,720,912	$ 6,906,515
Contracts payable, including retainages	786,120	2,009,850
Capital lease obligation	914,562	812,396
Accrued interest payable - capital lease obligation	525,505	542,199
Accrued workers' compensation	184,398	93,423
Accrued vacation	773,986	751,790
Due to other State agencies	4,634,989	28,832,198
	16,540,472	39,948,371
Current liabilities (payable from restricted assets):		
Contracts payable, including retainages	26,368,076	5,350,104
Revenue bonds payable, current maturities	17,380,263	16,779,424
General obligation bonds payable, current maturities	2,336,771	2,227,919
Accrued interest payable - revenue bonds	5,907,710	6,190,609
Security deposits	2,503,127	2,479,452
	54,495,947	33,027,508
Total current liabilities	71,036,419	72,975,879
Long-term liabilities:		
Accrued workers' compensation	890,668	824,367
Net pension liability	35,113,859	34,412,958
Net other postretirement benefits liability	38,353,266	38,004,809
Long-term debt, less current maturities:		
Revenue bonds payable, net	259,437,151	276,817,414
General obligation bonds payable	18,689,945	21,026,716
Capital lease obligation	24,548,967	25,463,529
Accrued vacation	1,888,223	1,909,862
Total long-term liabilities	378,922,079	398,459,655
Total liabilities	449,958,498	471,435,534
Deferred Inflows of Resources:		
Related to pension	682,350	562,441
Related to other postemployment benefits	692,238	48,856
Total deferred inflows of resources	1,374,588	611,297
Net Position:		
Net investment in capital assets	666,525,546	580,854,616
Restricted - revenue bond requirements	34,727,745	34,400,642
Restricted - for capital improvement projects	143,073,277	170,390,363
Unrestricted	151,517,985	104,488,817
Total net position	$ 995,844,553	$ 890,134,438

See accompanying notes to financial statements.

Harbors Division
Department of Transportation
State of Hawaii
(An Enterprise Fund of the State of Hawaii)

Statements of Revenues, Expenses, and Changes in Net Position

Years Ended June 30, 2019 and 2018

	2019	2018
Operating revenues, net:		
Services	$ 159,189,339	$ 136,039,047
Rentals	29,865,857	27,684,442
Others	1,661,974	1,387,737
	190,717,170	165,111,226
Operating expenses:		
Depreciation	28,993,799	27,019,188
Personnel services	22,302,235	21,921,585
Harbor operations	17,097,769	23,466,534
State of Hawaii surcharge for central service expenses	7,475,000	6,068,244
General administration	3,815,054	2,685,408
Department of Transportation general administration expenses	2,046,113	1,335,022
Maintenance	1,924,959	4,124,370
	83,654,929	86,620,351
Operating income	107,062,241	78,490,875
Nonoperating revenues (expenses):		
Interest expense	(8,505,943)	(11,110,200)
Interest income	7,887,537	5,488,391
Amortization of bond premium, discount, and deferred charge on refunding	(458,688)	(725,424)
Loss on disposal of capital assets	(275,032)	(9,657)
	(1,352,126)	(6,356,890)
Income before capital contributions	105,710,115	72,133,985
Capital contributions	-	153,371
Change in net position	105,710,115	72,287,356
Net position, beginning of year	890,134,438	817,847,082
Net position, end of year	$ 995,844,553	$ 890,134,438

See accompanying notes to financial statements.

Harbors Division
Department of Transportation
State of Hawaii
(An Enterprise Fund of the State of Hawaii)

Statements of Cash Flows

Years Ended June 30, 2019 and 2018

	2019	2018
Cash flows from operating activities:		
Cash received from customers	$ 164,650,455	$ 180,864,468
Cash paid to suppliers	(31,861,665)	(38,418,050)
Cash paid to employees	(19,913,885)	(18,684,590)
Net cash provided by operating activities	112,874,905	123,761,828
Cash flows from capital and related financing activities:		
Acquisition and construction of capital assets	(69,337,253)	(112,270,285)
Principal paid on bonds	(18,982,919)	(40,407,232)
Interest paid on bonds and capital lease obligation	(14,023,445)	(15,112,233)
Principal paid on capital lease obligation	(812,396)	(716,734)
Proceeds from bond issuance	-	22,425,000
Net cash used in capital and related financing activities	(103,156,013)	(146,081,484)
Cash flows provided by investing activities:		
Interest received	3,256,587	2,193,331
Net increase (decrease) in cash and cash equivalents	12,975,479	(20,126,325)
Cash and cash equivalents at beginning of year	406,586,162	426,712,487
Cash and cash equivalents at end of year	$ 419,561,641	$ 406,586,162

(Continued on following page)

Harbors Division

Department of Transportation

State of Hawaii

(An Enterprise Fund of the State of Hawaii)

Statements of Cash Flows (Continued)

Years Ended June 30, 2019 and 2018

	2019	2018
Reconciliation of operating income to net cash provided by operating activities:		
Operating income	$ 107,062,241	$ 78,490,875
Adjustments to reconcile operating income to net cash provided by operating activities:		
Depreciation	28,993,799	27,019,188
Provision for (recovery of) doubtful accounts	997,887	(1,400,531)
Changes in assets, deferred outflows, liabilities, and deferred inflows:		
Receivables	(2,891,068)	(3,210,198)
Deferred outflows of resources	324,431	1,176,757
Payables	590,667	(511,685)
Accrued workers' compensation	157,276	276,898
Accrued vacation	557	78,819
Due to other State agencies	(24,197,209)	20,421,268
Security deposits	23,675	52,704
Net pension liability	700,901	(1,040,284)
Net other postretirement benefits liability	348,457	2,418,393
Deferred inflows of resources	763,291	(10,376)
Net cash provided by operating activities	$ 112,874,905	$ 123,761,828

	2019	2018
Supplemental disclosure of noncash capital and related financing activities:		
Amounts included in contracts payable for the acquisition of capital assets	$ 26,368,076	$ 5,350,104
Interest capitalized in capital assets	$ 5,217,909	$ 3,280,542
Other assets utilized for the acquisition of capital assets	$ 7,177,987	$ 7,147,987
Amortization of bond premium, discount, and deferred charge on refunding	$ (507,537)	$ (725,424)
Capital contributions	$ -	$ 153,371

See accompanying notes to financial statements.

1. Financial Reporting Entity

In 1959, the Harbors Division was established within the Department of Transportation of the State of Hawaii (the DOT) effective July 1, 1961. All functions and powers to administer, control, and supervise all State of Hawaii (the State) harbors and water navigational facilities were assigned to the Director of the DOT on that date.

The Harbors Division is part of the DOT, which is part of the executive branch of the State. The State Comptroller maintains the central accounts for all State funds and publishes financial statements for the State annually, which include the Harbors Division's financial activities. The accompanying financial statements present only the activities of the Harbors Division and are not intended to present fairly the financial position of the State and the changes in its financial position and cash flows of its business-type activities.

The "Certificate of the Director of Transportation Providing for the Issuance of 1997 State of Hawaii Harbor Revenue Bonds," dated March 1, 1997 (1997 Certificate), defines the "Undertaking" as all of the harbor and waterfront improvements and other properties under the jurisdiction, control, and management of the Harbors Division, except those principally used for recreation and the landing of fish.

2. Summary of Significant Accounting Policies

The financial statements of the Harbors Division have been prepared in conformity with accounting principles generally accepted in the United States of America (GAAP). The Governmental Accounting Standards Board (the GASB) is the accepted standard-setting body for establishing governmental accounting and financial reporting principles. The Harbors Division's significant accounting policies are described below.

Measurement Focus and Basis of Accounting

An enterprise fund is used to account for the acquisition, operation, and maintenance of government facilities and services that are entirely or predominantly supported by user charges. The Harbors Division's operations are accounted for using the economic resources measurement focus and the accrual basis of accounting. Under this method, revenues are recorded when earned and expenses are recorded at the time liabilities are incurred.

Cash and Cash Equivalents

Cash and cash equivalents include all cash and investments with original maturities of three months or less and amounts held in State Treasury.

Amounts Held in State Treasury

The State's investments held in the State Treasury are reported at fair value within the fair value hierarchy established by GAAP. Investment earnings are allocated to the pool participants, including the Harbors Division, based upon their equity interest in the pooled monies.

Fair Value Measurements

The Harbors Division measures the fair value of assets and liabilities as the price that would be received to sell an asset or paid to transfer a liability in the principal or most advantageous market in an orderly transaction between market participants at the measurement date. The fair value hierarchy distinguishes between independent observable inputs and unobservable inputs used to measure fair value, as follows:

Level 1 - Quoted prices (unadjusted) in active markets for identical assets or liabilities.

Level 2 - Inputs other than quoted market prices included in Level 1 that are observable for an asset or liability, either directly or indirectly.

Level 3 - Unobservable inputs for an asset or liability reflecting the reporting entity's own assumptions. Level 3 inputs are used to measure fair value to the extent that observable Level 1 or 2 inputs are not available.

Restricted Assets

Restricted assets consist primarily of amounts for the principal and interest accumulated to make debt service payments, amounts restricted for capital improvement projects including unspent bond proceeds, amounts restricted for bond reserve requirements, security deposits, and customer advances.

Accounts Receivable and Allowance for Doubtful Accounts

Accounts receivable are reported at their gross value when earned, reduced by an allowance for doubtful accounts.

Accounts are written-off upon the approval of the State Department of the Attorney General, when it believes, after considering economic conditions, business conditions, and collection efforts, that the accounts are uncollectible.

The allowance for doubtful accounts is increased by charges to operating income and decreased by charge-offs (net of recoveries). Management's periodic evaluation of the adequacy of the allowance is based on the adverse situations that may affect the customer's ability to repay, historical experience, and current economic conditions. Past due status is determined based on contractual terms.

Risk Management

The Harbors Division is exposed to various risks for loss related to torts; theft of, damage to, or destruction of assets; errors or omissions; natural disasters; and workers' compensation. A liability for a claim for a risk of loss is established if information indicates that it is probable that a liability has been incurred at the date of the financial statements and the amount of the loss can be reasonably estimated. The estimated reserve for losses and loss adjustment costs includes the accumulation of estimates for losses and claims reported prior to fiscal year-end, nonincremental estimates (based on projections of historical developments) of claims incurred but not reported, and nonincremental estimates of costs for investigating and adjusting all incurred and unadjusted claims. Amounts reported are subject to the impact of future changes in economic and social conditions. The Harbors Division believes that, given the inherent variability in any such estimates, the reserves are within a reasonable and acceptable range of adequacy. Reserves are continually monitored and reviewed and, as settlements are made and reserves adjusted, the differences are reported in current operations.

Capital Assets and Depreciation

Capital assets are stated at cost. Depreciation of capital assets is computed using the straight-line method over the estimated useful lives of the assets. Disposals of assets are recorded by removing the cost and related accumulated depreciation from the accounts with the resulting gain or loss reflected in nonoperating revenues (expenses).

Capital assets and their related estimated useful lives used to compute depreciation are as follows:

	Useful Lives	**Capitalization Threshold**
Land improvements	10 – 100 years	$ 100,000
Wharves	10 – 100 years	100,000
Buildings	5 – 50 years	100,000
Other improvements	5 – 50 years	100,000
Equipment	5 – 20 years	5,000

Maintenance and repairs, as well as minor replacements, renewals, and betterments, are charged to operations. Major renewals, replacements, and betterments which extend the service lives of the related assets are capitalized in the year incurred. Interest cost is capitalized during the period of construction for capital improvement projects, except those projects funded by grants from the State or the Federal government.

Unamortized Debt Premium (Discount)

Debt premium (discount) is amortized using the effective interest rate method over the term of the related debt, and the unamortized balance is reflected as an addition or deduction to the related liabilities in the statements of net position.

Refunding of Debt

The difference between the reacquisition price and the net carrying amount of the old debt is deferred and amortized as a component of interest expense in a systematic and rational manner over the remaining life of the old debt or the life of the new debt, whichever is shorter. The deferred charge on refunding amounted to $2,131,466 and $2,614,579 at June 30, 2019 and 2018, respectively, and are reported as deferred outflows of resources in the statements of net position.

Deferred Outflows of Resources and Deferred Inflows of Resources

Deferred outflows (inflows) of resources represent a consumption of (benefit to) net position that applies to a future period. The Harbors Division defers recognition of the charge on refunding related to issuance of its revenue bonds and amortizes these costs over the life of the bonds using the effective interest rate method. The deferred outflow of resources related to pensions and other postemployment benefits (OPEB) resulted from changes in assumptions, differences between expected and actual experience, and changes in proportion and differences between contributions and proportionate share of contributions, which will be amortized over five years, and the Harbors Division's contributions to the pension and OPEB plans subsequent to the measurement date of the actuarial valuations for the pension and OPEB plans which will be recognized as a reduction of the net pension liability and net OPEB liability in the subsequent fiscal year.

The deferred inflows of resources related to pension and OPEB resulted from differences between expected and actual experience, changes in proportion and differences between contributions and proportionate share of contributions, and the net difference between projected and actual earnings on pension and OPEB plan investments, which will be amortized over five years.

Accrued Vacation

The Harbors Division accrues all vacation and compensatory pay at current salary rates, including additional amounts for certain salary-related expenses associated with the payment of compensated absences. Vacation is earned at the rate of 168 hours per calendar year, depending on an employee's date of hire. Accumulation of such vacation credits is limited to 720 hours at calendar year-end and is convertible to pay upon termination of employment.

Net Position

Net position is reported in three categories as follows:

Net investment in capital assets - represents the Harbors Division's investment in capital assets, less related indebtedness outstanding to acquire those capital assets.

Restricted - represents revenue bond reserves and capital project funds that are subject to external restrictions on how they may be used.

Unrestricted - may be used to meet any of the Harbors Division's ongoing operations or fund capital improvement projects.

Operating Revenues

Operating revenues are those that result from providing goods and services and are reported net of bad debt. The provision for (recovery of) bad debts for the years ended June 30, 2019 and 2018 was approximately $998,000 and ($1,400,000), respectively. Operating revenues also exclude revenues related to capital and related financing activities, noncapital financing activities, and investing activities.

As of June 30, 2019, the Harbors Division has pledged its future operating revenues, net of certain operating expenses, to repay $276,855,000 in Harbor Revenue Bonds. Proceeds from the bonds provided financing for the construction of new facilities and the improvement of existing facilities related to the State's commercial harbors. The bonds are payable solely from the Harbors Division's operating revenues and are payable through July 2040.

The total principal and interest remaining to be paid on the bonds is approximately $403,941,000 as of June 30, 2019. Principal and interest paid (as defined by the Harbor revenue bond debt service requirements under the 1997 certificate) and total operating revenues, net of certain operating expenses, were approximately $28,936,000 and $149,392,000 respectively, for the year ended June 30, 2019, and approximately $29,114,000 and $115,599,000 respectively, for the year ended June 30, 2018.

Operating Expenses

All expenses related to operating the Harbors Division are reported as operating expenses. Interest income, interest expense, gain (loss) on disposal of capital assets, and the amortization of bond premium, discount, and deferred charge on refunding are reported as nonoperating revenues (expenses).

When an expense is incurred for which unrestricted and restricted resources are available to pay the expense, it is the Harbors Division's policy to apply the expense to unrestricted resources first, then to restricted resources.

Capital Contributions

The Harbors Division receives federal grants restricted for capital asset acquisition and facility development. Grants are considered earned as the related allowable expenditures are incurred, and are reported in the statements of revenues, expenses, and changes in net position, after nonoperating revenues (expenses) as capital contributions.

Pension

For purposes of measuring the net pension liability, deferred outflows of resources and deferred inflows of resources related to pension, and pension expense, information about the fiduciary net position of the Harbor Division's participation in the Employees' Retirement System of the State of Hawaii (the ERS) and additions to/deductions from the ERS's fiduciary net position have been determined on the same basis as they are reported by the ERS. For this purpose, benefit payments (including refunds of employee contributions) are recognized when due and payable in accordance with benefit terms. The ERS's investments are reported at fair value.

Other Postemployment Benefits

For purposes of measuring the net OPEB liability, deferred outflows of resources and deferred inflows of resources related to OPEB, and OPEB expense, information about the fiduciary net position of the Harbor Division's participation in the Hawaii Employer-Union Health Benefits Trust Fund (the EUTF) and additions to/deductions from the EUTF's fiduciary net position have been determined on the same basis as they are reported by the EUTF. For this purpose, benefit payments are recognized when due and payable in accordance with the benefit terms. The EUTF's investments are reported at fair value.

Use of Estimates

The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements, and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

Recently Issued Accounting Pronouncements

GASB Statement No. 87

The GASB issued Statement No. 87, *Leases*. The objective of this statement is to better meet the information needs of financial statement users by improving accounting and financial reporting for leases by governments. This statement requires recognition of certain lease assets and liabilities for leases that previously were classified as operating leases and recognized as inflows of resources or outflows of resources based on the provisions of the contract. The requirements of this statement are effective for reporting periods beginning after December 15, 2019. The Harbors Division is currently evaluating the impact that this statement will have on its financial statements.

GASB Statement No. 89

The GASB issued Statement No. 89, *Accounting for Interest Cost Incurred before the End of a Construction Period*. This statement replaces Paragraph 5-22 of Statement No. 62*, Codification of Accounting and Financial Reporting Guidance Contained in Pre-November 30, 1989 FASB and AICPA Pronouncements*. This statement requires that interest cost incurred before the end of a construction period be recognized as an expense in the period in which the cost is incurred for financial statements prepared using the economic resources measurement focus. The requirements of this statement are effective for reporting periods beginning after December 15, 2019. The Harbors Division is currently evaluating the impact that this statement will have on its financial statements.

3. Cash and Cash Equivalents

Cash and cash equivalents at June 30, 2019 and 2018 consisted of the following:

	2019	2018
Amounts held in State Treasury	$ 415,996,872	$ 403,922,261
Petty cash and other	3,564,769	2,663,901
	$ 419,561,641	$ 406,586,162

Such amounts are reflected in the statements of net position at June 30, 2019 and 2018 as follows:

	2019	2018
Current assets:		
Unrestricted	$ 226,978,777	$ 185,531,299
Restricted:		
Revenue bond debt service payments	23,272,712	22,945,609
Revenue bond cash reserve requirements	11,455,033	11,455,033
Noncurrent assets:		
Restricted:		
Capital improvement projects -		
Construction - special purpose funds	143,073,277	170,390,363
Other-bond reserve requirements		
and security deposits	14,781,842	16,263,858
	$ 419,561,641	$ 406,586,162

Amounts Held in State Treasury

The Director of Finance of the Department of Budget and Finance, State of Hawaii (B&F), is responsible for the safekeeping of all monies paid into the State Treasury. The Director of Finance pools and invests any monies of the State, which in the Director of Finance's judgment, are in excess of the amounts necessary for meeting the specific requirements of the State. Investment earnings are allocated to the pool participants based upon their equity interest in the pooled monies.

Legally authorized investments include obligations of or guaranteed by the U.S. government, obligations of the State, federally-insured savings and checking accounts, time certificates of deposit, and repurchase agreements with federally-insured financial institutions.

At June 30, 2019 and 2018, amounts held in State Treasury by the Harbors Division totaled \$415,996,872 and \$403,922,261, respectively. The amounts held in State Treasury reported in the accompanying statements of net position reflects the Harbors Division's relative position in the State's investment pool based upon the average monthly investment balance of each participant in the investment pool.

Information relating to the cash and investments in State Treasury is determined on a statewide basis and not for individual departments or agencies. Information regarding the carrying amount and corresponding bank balances of the investment pool and collateralization of the investment pool balances is included in the comprehensive annual financial report (CAFR) of the State.

Cash and Cash Equivalents

The State maintains bank accounts for various purposes at locations throughout the State and the nation. Bank deposits for the State Treasury are under the custody of the Director of Finance. Cash and cash equivalents consist of cash, time certificates of deposit, and money market accounts. Cash and cash equivalents also include repurchase agreements and U.S. government securities with original maturities of three months or less.

Investments

The State holds investments both for its own benefit and as an agent for other parties. Further, the State pools all excess funds into an investment pool that is administered by B&F. The pool's investment options are limited to investments listed in the Hawaii Revised Statutes (HRS).

At the end of each year, B&F allocates the investment pool amount to each of the participants. The allocation is based on the average monthly investment balance of each participant in the investment pool.

The EUTF maintains a separate investment pool. The EUTF board is responsible for safekeeping these monies and has appointed an investment committee responsible for investing EUTF assets in compliance with HRS Sections 87A-24(2) and 88-119. Money is invested in accordance with the EUTF's investment policy.

The following table presents the fair value of the State's investments by level of input at June 30, 2018 (amounts expressed in thousands):

		Fair Value Measurements Using		
	Reported Value	Quoted Prices in Active Markets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Primary government:				
Investments measured by fair value level:				
U.S. government securities	$ 2,538,307	$ 505,588	$ 2,032,719	$ -
Mutual funds	55,808	55,808	-	-
	2,594,115	$ 561,396	$ 2,032,719	$ -
Investments measured at amortized cost:				
Certificates of deposit	1,250,211			
Total investments	$ 3,844,326			
Fiduciary funds:				
Investments measured by fair value level:				
Equity securities	$ 480,095	$ 480,095	$ -	$ -
U.S. government securities	349,861	34,891	314,970	-
Mutual funds	134,957	134,957	-	-
Derivatives	(194)	-	(194)	-
	964,719	$ 649,943	$ 314,776	$ -
Investments measured by net asset value (NAV):				
Commingled funds:				
Domestic equity	491,598			
International equity	466,546			
Domestic core fixed income	68,673			
Domestic inflation-linked fixed income	243,311			
Alternative investments	279,812			
	2,514,659			
Investments measured at amortized cost:				
Certificates of deposit	86,278			
Total investments	$ 2,600,937			
Invested securities lending collateral at NAV				
Money market fund	$ 14,468			

Information relating to the fair value of investments in the State's investment pool at June 30, 2019 will be included in the State's CAFR when issued.

Cash and Cash Equivalents, Certificates of Deposit, and Repurchase Agreements

The State considers all cash and investments with original maturities of three months or less to be cash equivalents. The carrying amounts for cash equivalents, certificates of deposit, and repurchase agreements are measured at amortized cost.

Debt Securities, Equity Securities, Mutual Funds, Commingled Funds and Alternative Investments, and Money Market Funds

The following methods and assumptions were used by the State in estimating the fair value of its financial instruments:

Debt securities – Debt securities held by the State consist of U.S. government obligations including U.S. Treasury bills and U.S. Treasury notes and bonds. The fair value of these investments are based on quoted prices in active markets or other observable inputs, including pricing matrices. These investments are categorized in either Level 1 or 2 of the fair value hierarchy.

Equity securities – Equity securities held by the State are valued at the closing price reported on the active market on which the individual securities are traded. These investments are categorized in Level 1 of the fair value hierarchy.

Mutual funds – The mutual funds held by the State are open-ended mutual funds that are registered with the Securities Exchange Commission (SEC). The fair value of these mutual funds are valued at the daily closing price as reported by the fund. These funds are required to publish their daily NAV and to transact at that price. These investments are categorized in Level 1 of the fair value hierarchy.

Commingled funds and alternative investments – Investments in commingled funds and alternative investments are valued at the NAV of units of the investment vehicles. The NAV is based on the fair value of the underlying assets held by the fund less its liabilities. The State has unfunded commitments of $92,451,000 and nil with regard to alternative investments and commingled funds, respectively.

Money market funds – Investments in money market funds are valued at the NAV of the custodian bank liquid asset portfolio. NAV is based on the fair value of the underlying assets held by the fund less its liabilities.

The preceding measurements described may produce a fair value calculation that may not be indicative of net realizable value or reflective of future fair values. The market volatility of equity-based investments is expected to substantially impact the value of such investments at any given time. It is likely that the State's investments have fluctuated since June 30, 2018.

The following table presents the investments by maturity period at June 30, 2018 (amounts expressed in thousands):

		Maturity (in years)		
	Reported Value	**Less than 1**	**1-5**	**>5**
Primary government:				
Certificates of deposit	$ 1,250,211	$ 1,184,854	$ 65,357	$ -
U.S. government securities	2,538,307	808,923	1,729,384	-
	3,788,518	$ 1,993,777	$ 1,794,741	$ -
Mutual funds	55,808			
Total investments	$ 3,844,326			
Fiduciary funds:				
Certificates of deposit	$ 86,278	$ 81,768	$ 4,510	$ -
U.S. government securities	349,861	55,827	294,034	-
Derivatives	(194)	-	(194)	-
	435,945	$ 137,595	$ 298,350	$ -
Equity securities	480,095			
Mutual funds	134,957			
Commingled funds	1,270,128			
Alternative investments	279,812			
Total investments	$ 2,600,937			

Information relating to the State's investments by maturity period at June 30, 2019 will be included in the State's CAFR when issued.

Interest Rate Risk

As a means of limiting its exposure to fair value losses arising from rising interest rates, the State's investment policy generally limits maturities on investments to not more than five years from the date of investment.

Credit Risk

The State's investment policy limits its investments in state and U.S. treasury securities, time certificates of deposit, U.S. government or agency obligations, repurchase agreements, commercial paper, banker's acceptances, and money market funds maintaining a Triple-A rating.

Custodial Risk

For an investment, custodial risk is the risk that, in the event of the failure of the counterparty, the State will not be able to recover the value of its investments or collateral securities that are in the possession of an outside party. The State's investments are held at broker/dealer firms, which are protected by the Securities Investor Protection Corporation (SIPC) up to a maximum amount. Excess-SIPC coverage is provided by the firms' insurance policies. In addition, the State requires the institutions to set aside in safekeeping certain types of securities to collateralize repurchase agreements. The State monitors the market value of these securities and obtains additional collateral when appropriate.

Concentration of Credit Risk

The State's policy provides guidelines for portfolio diversification by placing limits on the amount the State may invest in any one issuer, types of investment instruments, and position limits per issue of an investment instrument.

Foreign Currency Risk

Foreign currency risk is the risk that changes in exchange rates will adversely impact the fair value of an investment. The EUTF's asset allocation and investment policy allows for active and passive investments in international securities. The foreign currency risk exposure to the State arises from the international equity investment holdings, including commingled funds, common stocks, and exchange traded funds.

4. Capital Assets

Capital asset activity for the years ended June 30, 2019 and 2018 were as follows:

	Balance July 1, 2018	Additions	Deductions	Balance June 30, 2019
Nondepreciable assets:				
Land and land improvements	$ 311,813,847	$ -	$ -	$ 311,813,847
Depreciable assets:				
Land improvements	288,221,236	26,018,119	-	314,239,355
Wharves	328,693,350	10,113,289	-	338,806,639
Other improvements	116,093,936	1,707,685	(2,028,659)	115,772,962
Buildings	116,912,184	8,869,940	-	125,782,124
Equipment	26,526,470	3,310,458	(1,150,898)	28,686,030
Total at cost	1,188,261,023	50,019,491	(3,179,557)	1,235,100,957
Less accumulated depreciation for:				
Land improvements	118,121,100	9,413,570	-	127,534,670
Wharves	166,358,693	8,923,786	-	175,282,479
Other improvements	61,396,002	3,146,276	-	64,542,278
Buildings	49,082,707	5,682,043	-	54,764,750
Equipment	17,573,985	1,828,124	(1,086,747)	18,315,362
Total accumulated depreciation	412,532,487	28,993,799	(1,086,747)	440,439,539
Construction in progress	145,638,900	88,579,204	(41,177,782)	193,040,322
Total capital assets, net	$ 921,367,436	$ 109,604,896	$ (43,270,592)	$ 987,701,740

	Balance July 1, 2017	Additions	Deductions	Balance June 30, 2018
Nondepreciable assets:				
Land and land improvements	$ 278,993,847	$ 32,820,000	$ -	$ 311,813,847
Depreciable assets:				
Land improvements	287,718,519	502,717	-	288,221,236
Wharves	278,758,332	49,935,018	-	328,693,350
Other improvements	91,114,188	24,979,748	-	116,093,936
Buildings	113,923,478	2,988,706	-	116,912,184
Equipment	25,831,050	1,207,095	(511,675)	26,526,470
Total at cost	1,076,339,414	112,433,284	(511,675)	1,188,261,023
Less accumulated depreciation for:				
Land improvements	108,728,541	9,392,559	-	118,121,100
Wharves	158,036,234	8,322,459	-	166,358,693
Other improvements	56,838,829	4,557,173	-	61,396,002
Buildings	46,328,976	2,753,731	-	49,082,707
Equipment	16,084,780	1,993,266	(504,061)	17,573,985
Total accumulated depreciation	386,017,360	27,019,188	(504,061)	412,532,487
Construction in progress	139,398,063	85,913,728	(79,672,891)	145,638,900
Total capital assets, net	$ 829,720,117	$ 171,327,824	$ (79,680,505)	$ 921,367,436

5. Long-Term Liabilities

The changes in long-term liabilities were as follows:

	Balance July 1, 2018	Additions	Deductions	Balance June 30, 2019	Current	Noncurrent
Accrued workers' compensation (Note 13)	$ 917,790	$ 341,674	$ 184,398	$ 1,075,066	$ 184,398	$ 890,668
Accrued vacation	2,661,652	1,139,011	1,138,454	2,662,209	773,986	1,888,223
Capital lease obligation (Note 9)	26,275,925	-	812,396	25,463,529	914,562	24,548,967
Net pension liability (Note 12)	34,412,958	2,927,918	2,227,017	35,113,859	-	35,113,859
Net other postretirement benefits liability (Note 12)	38,004,809	2,855,938	2,507,481	38,353,266	-	38,353,266
General obligation bonds (Note 8)	23,254,635	-	2,227,919	21,026,716	2,336,771	18,689,945
Revenue bonds (Note 6)	293,610,000	-	16,755,000	276,855,000	17,365,000	259,490,000
Unamortized premium(discount), net	(13,162)	-	24,424	(37,586)	15,263	(52,849)
Revenue bonds, net	293,596,838	-	16,779,424	276,817,414	17,380,263	259,437,151
	$ 419,124,607	$ 7,264,541	$ 25,877,089	$ 400,512,059	$ 21,589,980	$ 378,922,079

	Balance July 1, 2017	Additions	Deductions	Balance June 30, 2018	Current	Noncurrent
Accrued workers' compensation (Note 13)	$ 640,892	$ 370,891	$ 93,993	$ 917,790	$ 93,423	$ 824,367
Accrued vacation	2,582,833	1,167,246	1,088,427	2,661,652	751,790	1,909,862
Capital lease obligation (Note 9)	26,992,659	-	716,734	26,275,925	812,396	25,463,529
Net pension liability (Note 12)	35,453,242	1,044,610	2,084,894	34,412,958	-	34,412,958
Other postretirement benefits payable (Note 12)	18,761,705	21,186,944	1,943,840	38,004,809	-	38,004,809
General obligation bonds (Note 8)	25,376,867	-	2,122,232	23,254,635	2,227,919	21,026,716
Revenue bonds (Note 6)	309,470,000	22,425,000	38,285,000	293,610,000	16,755,000	276,855,000
Unamortized premium, net	277,445	-	290,607	(13,162)	24,424	(37,586)
Revenue bonds, net	309,747,445	22,425,000	38,575,607	293,596,838	16,779,424	276,817,414
	$ 419,555,643	$ 46,194,691	$ 46,625,727	$ 419,124,607	$ 20,664,952	$ 398,459,655

6. Revenue Bonds Payable

Pursuant to authorization from the State Legislature, the Director of DOT issued the 1997 Certificate, which provides for the issuance of bonds at any time and from time-to-time upon compliance with certain conditions of the 1997 Certificate.

The Harbor Revenue Bonds (Revenue Bonds) are collateralized by a charge and lien on the revenues of the Public Undertaking as defined in the 1997 Certificate.

The Revenue Bonds are subject to redemption at the option of the Director of DOT and the State during specific years at prices ranging from 102% to 100% of face value.

The following is a summary of the Revenue Bonds issued and outstanding at June 30, 2019:

Year of Issue	Final Redemption Date	Interest Rate	Original Amount of Issue	Current: Principal Due July 1, 2019	Current: Principal Due January 1, 2020	Total Current	Noncurrent
2010	July 1, 2040	3.00 - 5.75%	$ 201,390,000	$ 5,755,000	$ -	$ 5,755,000	$ 154,520,000
2013	July 1, 2029	3.25%	23,615,000	3,210,000	-	3,210,000	13,405,000
2016	January 1, 2031	1.99 - 3.09%	113,660,000	3,550,000	4,850,000	8,400,000	91,565,000
			$ 338,665,000	$ 12,515,000	$ 4,850,000	17,365,000	259,490,000
				Unamortized premium (discount), net		15,263	(52,849)
						$ 17,380,263	$ 259,437,151

The following is a summary of the Revenue Bonds issued and outstanding at June 30, 2018:

Year of Issue	Final Redemption Date	Interest Rate	Original Amount of Issue	Current: Principal Due July 1, 2018	Current: Principal Due January 1, 2019	Total Current	Noncurrent
2010	July 1, 2040	3.00-5.75%	$ 201,390,000	$ 5,495,000	$ -	$ 5,495,000	$ 160,275,000
2013	July 1, 2029	3.25%	23,615,000	3,105,000	-	3,105,000	16,615,000
2016	January 1, 2031	1.99-3.09%	113,660,000	1,015,000	7,140,000	8,155,000	99,965,000
			$ 338,665,000	$ 9,615,000	$ 7,140,000	16,755,000	276,855,000
				Unamortized premium (discount), net		24,424	(37,586)
						$ 16,779,424	$ 276,817,414

Debt service requirements to maturity for the Revenue Bonds are as follows:

Fiscal Year Ending June 30	Principal	Interest	Total
2020	$ 17,365,000	$ 11,574,998	$ 28,939,998
2021	17,290,000	10,956,248	28,246,248
2022	17,950,000	10,305,832	28,255,832
2023	18,595,000	9,648,188	28,243,188
2024	15,025,000	9,103,587	24,128,587
2025-2029	75,970,000	37,480,084	113,450,084
2030-2034	48,365,000	24,131,157	72,496,157
2035-2039	44,620,000	12,650,025	57,270,025
2040-2041	21,675,000	1,236,234	22,911,234
	$ 276,855,000	$ 127,086,353	$ 403,941,353

The debt service requirements reflect the sum of the amounts to be paid in accordance with the repayment schedules of the bonds issued. Principal and interest payments are required to be funded in the 12-month and 6-month periods, respectively, preceding the date on which the payments are due. Accordingly, the debt service requirements include reserves of $23,272,712 as of June 30, 2019, for principal payments of $12,515,000 and $4,850,000 due on July 1, 2019 and January 1, 2020, respectively, and for interest payments $5,907,712 due on July 1, 2019.

7. Harbor Revenue Bond Requirements

1997 Certificate – Minimum Net Revenue Requirement

Pursuant to Section 6.03 of the 1997 Certificate, the Harbors Division covenants and agrees that so long as any of the Revenue Bonds remain outstanding, it will enforce and collect fees, rates, rents, and charges for the Public Undertaking that will yield net revenue, as defined by the 1997 Certificate, for the immediately ensuing 12 months, in an amount at least sufficient to:

(1) Together with funds legally available, therefore including any amounts on deposit in the harbor reserve and contingency account; an aggregate sum equal to at least 1.25 times the total amount of: (i) the interest payments for such 12 months on all the Revenue Bonds outstanding under the 1997 Certificate, (ii) the principal amount of the Revenue Bonds maturing by their terms during such 12 months and (iii) the minimum sinking fund payments for all Revenue Bonds required to be made during such 12 months; and

(2) Without consideration of other funds, shall be at least equal to 1.00 times the bond service for such 12 months.

The Harbor Revenue Bond debt service requirements, including minimum sinking fund payments during the current fiscal year, computed in accordance with Section 6.03 of the 1997 Certificate totaled $28,936,451. Net revenues of the Public Undertaking, as defined by the 1997 Certificate amounted to $162,316,235 or 5.61 times the minimum net revenue requirement for the fiscal year ended June 30, 2019, and $127,964,356 or 4.40 times the minimum net revenue requirement for the fiscal year ended June 30, 2018.

Harbor Special Fund

All revenues are deposited into this fund and applied in the order of priority set forth under the 1997 Certificate. Section 5.01 of the 1997 Certificate requires that the following accounts be established:

(1) Harbor Interest Account

Equal monthly installments sufficient to pay for the interest next becoming due on the Revenue Bonds are required to be paid into this account. This requirement was met as of June 30, 2019 and 2018.

(2) Harbor Principal Account

Commencing with the first business day of each fiscal year, equal monthly payments are required to be made to this account sufficient to redeem the Revenue Bonds scheduled for redemption on the following July 1 and January 1. This requirement was met as of June 30, 2019 and 2018.

(*3) Harbor Debt Service Reserve Account*

In order to provide a reserve for the payment of the principal and interest on the Revenue Bonds, the Harbors Division is required to deposit in the harbor revenue special fund an amount equal to the lesser of: (a) the average annual bond service on such series and (b) the amount permitted by the Internal Revenue Code of 1986 in order that the interest on such series is excluded from gross income for federal income tax purposes.

Furthermore, the Harbors Division is required to satisfy the reserve requirement of maximum aggregate bond service by no later than the first date on which a principal installment is payable on July 1 or January 1 of each fiscal year.

In lieu of the credit of monies to the harbor debt service reserve account, the Harbors Division may cause to be so credited a surety bond or an insurance policy payable to the Harbors Division for the benefit of the holders of the Revenue Bonds of a series or a letter of credit in an amount equal to the difference between the reserve requirement and the amounts then on credit to the harbor debt service reserve account. In the event a surety bond, insurance policy, or letter of credit is secured to satisfy that portion of the reserve requirement allocable to a series of Revenue Bonds, so long as such surety bond, insurance policy, or letter of credit is in effect, the owners of such series of Revenue Bonds shall not be entitled to payment from or a lien on the funds on deposit in the harbor revenue special fund credited to the harbor debt service reserve account to satisfy that portion of the reserve requirement allocable to other series of Revenue Bonds, nor shall the owners of Revenue Bonds of such other series be entitled to any payment from such surety bond, insurance policy, or letter of credit. The surety bond, insurance policy, or letter of credit shall be payable (upon the giving of notice as required thereunder) on any date on which monies will be required to be applied from the harbor debt service reserve account to the payment of the principal or interest on any Revenue Bonds of such series and such withdrawals may not be made from amounts credited to the harbor debt service reserve account for such series of Revenue Bonds.

Prior to the use of a surety bond, insurance policy, or letter of credit pursuant to the provisions of this paragraph (other than any such use at the time of issuance of the 1997 Series Revenue Bonds), DOT shall receive written confirmation from the rating agency that the rating on the Revenue Bonds outstanding as then in effect shall not be reduced as a result of such use. If a disbursement is made pursuant to a surety bond, an insurance policy, or a letter of credit provided pursuant to this paragraph, the Harbors Division shall be obligated either: (a) to reinstate the maximum limits of such surety bond, insurance policy, or letter of credit or (b) to credit the harbor debt service reserve account, funds in the amount of the disbursement made under such surety bond, insurance policy, or letter of credit, or a combination of such alternatives, as shall provide that the amount credited to the harbor debt service reserve account allocable to a series of Revenue Bonds equals that portion of the reserve requirement allocable to such series; provided, however, a failure to immediately restore such reserve requirement shall not constitute an event of default if the reserve requirement is restored within the time period permitted by Section 11.01(c) (90 days following the required notice). Notwithstanding the provisions of Section 11.01(c), the Harbors Division shall not permit any surety bond, insurance policy, or letter of credit which has been established in lieu of a deposit into the harbor revenue special fund for credit to the harbor debt service reserve account to terminate or expire prior to depositing to such fund for credit to such account the amount satisfied previously by the surety bond, insurance policy, or letter of credit.

(4) Harbor Reserve and Contingency Account

Monies on credit to the harbor reserve and contingency account may be used to make up any deficiency with respect to any series of Revenue Bonds in the harbor interest account, the harbor principal account and the harbor debt service reserve account. To the extent not used to make up any such deficiencies, monies on credit to the harbor reserve and contingency account may be used for any other purpose within the jurisdiction, powers, duties, and functions of the Harbors Division.

8. General Obligation Bonds

In fiscal 2006, the State issued $350,000,000 of General Obligation bonds, Series DI, dated March 23, 2006; in fiscal 2007, the State issued $350,000,000 of General Obligation bonds, Series DJ, dated March 28, 2007; and in fiscal 2008, the State issued $375,000,000 of General Obligation bonds, Series DK, dated May 1, 2008. Interest rates on outstanding Series DI, Series DJ, and Series DK General Obligation bonds range from 4.00% to 5.00%.

Reimbursable general obligation bonds are general obligations of the State, but since the proceeds were used to finance the harbor and waterfront improvements, the Harbors Division is required to reimburse the State's general fund for the payment of principal and interest on such bonds. As of June 30, 2019 and 2018, outstanding reimbursable general obligation bonds amounted to approximately $21,027,000 and $23,255,000, respectively.

Debt service requirements to maturity for the reimbursable general obligation bonds are as follows:

Fiscal Year Ending June 30	Principal	Interest	Total
2020	$ 2,336,771	$ 1,044,012	$ 3,380,783
2021	2,450,903	929,861	3,380,764
2022	2,572,554	808,084	3,380,638
2023	2,700,654	680,024	3,380,678
2024	2,835,218	545,735	3,380,953
2025-2028	8,130,616	804,233	8,934,849
	$ 21,026,716	$ 4,811,949	$ 25,838,665

9. Capital Lease Obligation

The Harbors Division entered into an equipment lease purchase agreement to fund the installation and acquisition of energy conservation measures at selected Harbors Division locations. Proceeds of $26,245,564 were deposited into an acquisition fund held in trust by an acquisition fund custodian to provide for future payments as requested by the Harbors Division. The agreement also provided for the financing of interest expense through October 1, 2016 amounting to $747,095, which applied toward the principal of the capital lease obligation. The capital lease obligation amounted to $25,463,529 and $26,275,925 at June 30, 2019 and 2018, respectively. Annual lease payments will commence on October 1, 2017 and continue through October 1, 2032 at an interest rate of 2.74%. Costs incurred for the installation and acquisition of energy conservation measures through June 30, 2019 are included in construction in progress and amounted to $28,234,075, which includes additional capitalized interest of $1,982,835 for the period October 2, 2016 through June 30, 2019, and accrued costs of $546,116. Unused proceeds in the acquisition fund at June 30, 2019 and 2018, amounted to $1,287,535 and $1,317,535, respectively, and are reported as other current assets in the accompanying statements of financial position.

Future minimum lease commitments are as follows:

Fiscal Year Ending June 30	Principal	Interest	Total
2020	$ 914,562	$ 697,700	$ 1,612,262
2021	1,023,606	672,642	1,696,248
2022	1,139,923	644,595	1,784,518
2023	1,263,929	613,361	1,877,290
2024	1,396,064	578,729	1,974,793
2025-2029	9,280,564	2,238,932	11,519,496
2030-2033	10,444,881	1,076,010	11,520,891
	$ 25,463,529	$ 6,521,969	$ 31,985,498

10. Interest Cost

Total combined interest cost incurred related to Revenue Bonds and reimbursable general obligation bonds for the fiscal years ended June 30, 2019 and 2018 amounted to approximately $13,021,000 and $13,666,000, respectively. Of this amount, approximately $4,515,000 and $2,556,000 were capitalized during fiscal years ended June 30, 2019 and 2018, respectively, as part of the construction cost of harbor facilities.

An additional $703,000 and $725,000 of interest cost incurred related to the capital lease obligation (see Note 9) was capitalized for the fiscal year ended June 30, 2019 and 2018, respectively.

11. Leasing Operations

The Harbors Division's leasing operations consist principally of the leasing of land, wharf, and building space under revocable permits and long-term leases. The revocable permits provide for tenancy on a month-to-month basis and are renewable annually at the option of the State. The long-term leases, which are classified as operating leases, expire in various years through August 2072. These leases generally call for rental increases every five to ten years based on a step-up or independent appraisals of the fair rental value of the leased property.

The following is a schedule of approximate future minimum lease rentals on noncancelable operating leases as of June 30, 2019:

Fiscal Year Ending June 30	Amount
2020	$ 5,653,211
2021	5,916,463
2022	5,931,847
2023	6,055,896
2024	5,899,744
2025-2029	28,792,802
2030-2034	25,942,429
2035-2039	18,322,019
2040-2044	15,291,607
2045-2049	9,798,358
2050-2054	7,883,599
2055-2059	7,094,195
2060-2064	5,272,382
2065-2069	5,137,265
2070-2073	3,217,476
	$ 156,209,293

The above schedule does not include estimated future rental revenue for certain leases beyond their first 15 years. An estimate could not be made due to rental reopenings after the 15th year in which rental rates will be based upon the prevailing fair value.

12. Retirement Benefits

Pension Plan

Plan Description

Generally, all full-time employees of the State and counties, which includes the Harbors Division, are required to be members of the ERS, a cost-sharing multiple-employer defined benefit pension plan that administers the State's pension benefits program. Benefits, eligibility, and contribution requirements are governed by HRS Chapter 88 and can be amended through legislation.

Benefits Provided

The ERS Pension Trust is comprised of three pension classes for membership purposes and considered to be a single plan for accounting purposes since all assets of the ERS may legally be used to pay the benefits of any of the ERS members or beneficiaries. The ERS provides retirement, disability, and death benefits with three membership classes known as the noncontributory, contributory, and hybrid retirement classes. The three classes provide a monthly retirement allowance equal to the benefit multiplier (generally 1.25% to 2.25%) multiplied by the average final compensation multiplied by years of credited service. Average final compensation for members hired prior to July 1, 2012 is an average of the highest salaries during any three years of credited service, excluding any salary paid in lieu of vacation for members hired January 1, 1971 or later and the average of the highest salaries during any five years of credited service including any salary paid in lieu of vacation for members hired prior to January 1, 1971. For members hired after June 30, 2012, average final compensation is an average of the highest salaries during any five years of credited service excluding any salary paid in lieu of vacation.

Each retiree's original retirement allowance is increased on each July 1 beginning the calendar year after retirement. Retirees first hired as members prior to July 1, 2012 receive a 2.5% increase each year of their original retirement allowance without a ceiling. Retirees first hired as members after June 30, 2012 receive a 1.5% increase each year of their original retirement allowance without a ceiling. The annual increase is not compounded.

The following summarizes the provisions relevant to the largest employee groups of the respective membership class. Retirement benefits for certain groups, such as police officers, firefighters, some investigators, sewer workers, judges, and elected officials, vary from general employees.

Noncontributory Class

Retirement Benefits

General employees' retirement benefits are determined as 1.25% of average final compensation multiplied by the years of credited service. Employees with ten years of credited service are eligible to retire at age 62. Employees with 30 years of credited service are eligible to retire at age 55.

Disability Benefits

Members are eligible for service-related disability benefits regardless of length of service and receive a lifetime pension of 35% of their average final compensation. Ten years of credited service is required for ordinary disability. Ordinary disability benefits are determined in the same manner as retirement benefits but are payable immediately, without an actuarial reduction, and at a minimum of 12.5% of average final compensation.

Death Benefits

For service-connected deaths, the surviving spouse/reciprocal beneficiary receives a monthly benefit of 30% of the average final compensation until remarriage or re-entry into a new reciprocal beneficiary relationship. Additional benefits are payable to surviving dependent children up to age 18. If there is no spouse/reciprocal beneficiary or surviving dependent children, no benefit is payable.

Ordinary death benefits are available to employees who were active at the time of death with at least ten years of credited service. The surviving spouse/reciprocal beneficiary (until remarriage/re-entry into a new reciprocal beneficiary relationship) and surviving dependent children (up to age 18) receive a benefit equal to a percentage of member's accrued maximum allowance unreduced for age or, if the member was eligible for retirement at the time of death, the surviving spouse/reciprocal beneficiary receives 100% joint and survivor lifetime pension and the surviving dependent children receive a percentage of the member's accrued maximum allowance unreduced for age.

Contributory Class for Members Hired Prior to July 1, 2012

Retirement Benefits

General employees' retirement benefits are determined as 2% of average final compensation multiplied by the years of credited service. General employees with five years of credited service are eligible to retire at age 55.

Police officers and firefighters' retirement benefits are determined using the benefit multiplier of 2.5% for qualified service, up to a maximum of 80% of average final compensation. Police officers and firefighters with five years of credited service are eligible to retire at age 55. Police officers and firefighters with 25 years of credited service are eligible to retire at any age, provided the last five years is service credited in these occupations.

Disability Benefits

Members are eligible for service-related disability benefits regardless of length of service and receive a one-time payment of the member's contributions and accrued interest plus a lifetime pension of 50% of their average final compensation. Ten years of credited service is required for ordinary disability. Ordinary disability benefits are determined as 1.75% of average final compensation multiplied by the years of credited service but are payable immediately, without an actuarial reduction, and at a minimum of 30% of average final compensation.

Death Benefits

For service-connected deaths, the surviving spouse/reciprocal beneficiary receives a lump sum payment of the member's contributions and accrued interest plus a monthly benefit of 50% of the average final compensation until remarriage or re-entry into a new reciprocal beneficiary relationship. If there is no surviving spouse/reciprocal beneficiary, surviving dependent children (up to age 18) or dependent parents are eligible for the monthly benefit. If there is no spouse/reciprocal beneficiary or surviving dependent children/parents, the ordinary death benefit is payable to the designated beneficiary.

Ordinary death benefits are available to employees who were active at time of death with at least one year of service. Ordinary death benefits consist of a lump sum payment of the member's contributions and accrued interest plus a percentage of the salary earned in the 12 months preceding death, or 50% joint and survivor lifetime pension if the member was not eligible for retirement at the time of death but was credited with at least ten years of service and designated one beneficiary, or 100% joint and survivor lifetime pension if the member was eligible for retirement at the time of death and designated one beneficiary.

Contributory Class for Members Hired After June 30, 2012

Retirement Benefits

General employees' retirement benefits are determined as 1.75% of average final compensation multiplied by the years of credited service. General employees with ten years of credited service are eligible to retire at age 60.

Police officers and firefighters' retirement benefits are determined using the benefit multiplier of 2.25% for qualified service, up to a maximum of 80% of average final compensation. Police officers and firefighters with ten years of credited service are eligible to retire at age 60. Police officers and firefighters with 25 years of credited service are eligible to retire at age 55, provided the last five years is service credited in these occupations.

Disability and Death Benefits

Members are eligible for service-related disability benefits regardless of length of service and receive a lifetime pension of 50% of their average final compensation plus refund of contributions and accrued interest. Ten years of credited service is required for ordinary disability. For police officers and firefighters, ordinary disability benefits are 1.75% of average final compensation for each year of service and are payable immediately, without an actuarial reduction, at a minimum of 30% of average final compensation.

Death benefits for contributory members hired after June 30, 2012 are generally the same as those for contributory members hired June 30, 2012 and prior.

Hybrid Class for Members Hired Prior to July 1, 2012

Retirement Benefits

General employees' retirement benefits are determined as 2% of average final compensation multiplied by the years of credited service. General employees with five years of credited service are eligible to retire at age 62. General employees with 30 years of credited service are eligible to retire at age 55.

Disability Benefits

Members are eligible for service-related disability benefits regardless of length of service and receive a lifetime pension of 35% of their average final compensation plus refund of their contributions and accrued interest. Ten years of credited service is required for ordinary disability. Ordinary disability benefits are determined in the same manner as retirement benefits but are payable immediately, without an actuarial reduction, and at a minimum of 25% of average final compensation.

Death Benefits

For service-connected deaths, the designated surviving spouse/reciprocal beneficiary receives a lump sum payment of the member's contributions and accrued interest plus a monthly benefit of 50% of the average final compensation until remarriage or re-entry into a new reciprocal beneficiary relationship. If there is no surviving spouse/reciprocal beneficiary, surviving dependent children (up to age 18) or dependent parents are eligible for the monthly benefit. If there is no spouse/reciprocal beneficiary or surviving dependent children/parents, the ordinary death benefit is payable to the designated beneficiary.

Ordinary death benefits are available to employees who were active at time of death with at least five years of service. Ordinary death benefits consist of a lump sum payment of the member's contributions and accrued interest plus a percentage multiplied by 150%, or 50% joint and survivor lifetime pension if the member was not eligible for retirement at the time of death but was credited with at least ten years of service and designated one beneficiary, or 100% joint and survivor lifetime pension if the member was eligible for retirement at the time of death and designated one beneficiary.

Hybrid Class for Members Hired After June 30, 2012

Retirement Benefits

General employees' retirement benefits are determined as 1.75% of average final compensation multiplied by the years of credited service. General employees with ten years of credited service are eligible to retire at age 65. Employees with 30 years of credited service are eligible to retire at age 60. Sewer workers, water safety officers, and emergency medical technicians may retire with 25 years of credited service at age 55.

Disability and Death Benefits

Provisions for disability and death benefits generally remain the same except for ordinary death benefits. Ordinary death benefits are available to employees who were active at time of death with at least ten years of service. Ordinary death benefits consist of a lump sum payment of the member's contributions and accrued interest, or 50% joint and survivor lifetime pension if the member was not eligible for retirement at the time of death but was credited with at least ten years of service and designated one beneficiary, or 100% joint and survivor lifetime pension if the member was eligible for retirement at the time of death and designated one beneficiary.

Contributions

Contributions are governed by HRS Chapter 88 and may be amended through legislation. The employer rate is set by statute based on the recommendations of the ERS actuary resulting from an experience study conducted every five years. Since July 1, 2005, the employer contribution rate is a fixed percentage of compensation, including the normal cost plus amounts required to pay for the unfunded actuarial accrued liabilities. The contribution rates for fiscal years 2019 and 2018 were

31.0% and 28.0%, respectively, for police officers and firefighters, and 19.0% and 18.0%, respectively, for all other employees. Contributions to the ERS from the Harbors Division were $2,414,232 and $2,227,017 for the fiscal years ended June 30, 2019 and 2018, respectively.

Per Act 17 (SLH 2017), future employer contributions from the State and counties are expected to increase over four years beginning July 1, 2017. The rate for police and firefighters increased to 31.0% on July 1, 2018, and increases to 36.0% on July 1, 2019, and 41.0% on July 1, 2020. The rate for all other employees increased to 19.0% on July 1, 2018, and increases to 22.0% on July 1, 2019, and 24.0% on July 1, 2020.

The employer is required to make all contributions for noncontributory members. Contributory members hired prior to July 1, 2012 are required to contribute 7.8% of their salary, except for police officers and firefighters who are required to contribute 12.2% of their salary. Contributory members hired after June 30, 2012, are required to contribute 9.8% of their salary, except for police officers and firefighters who are required to contribute 14.2% of their salary. Hybrid members hired prior to July 1, 2012 are required to contribute 6.0% of their salary. Hybrid members hired after June 30, 2012 are required to contribute 8.0% of their salary.

Pension Liabilities, Pension Expense, and Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pension

Measurement of the actuarial valuation of the pension liability, pension expense, and deferred outflows of resources and deferred inflows of resources related to pension is made for the State as a whole and is not separately computed for the individual state departments and agencies such as the Harbors Division. The State allocates the pension liability, pension expense, and deferred outflows of resources and deferred inflows of resources related to pension to the various departments and agencies based upon a systematic methodology. Additional disclosures and required supplementary information stipulated by Statement Nos. 68 and 71 pertaining to the State's net pension liability, pension expense, and deferred outflows of resources and deferred inflows of resources related to pension can be found in the State's CAFR.

At June 30, 2019 and 2018, the Harbors Division reported a net pension liability of $35,113,859 and $34,412,958, respectively, for its proportionate share of the State's net pension liability. The net pension liability was measured as of June 30, 2018 and 2017, and the total pension liability used to calculate the net pension liability was determined by actuarial valuations as of those dates.

At June 30, 2019 and 2018, the Harbors Division's share of the State's net pension liability was 0.51%.

There were no changes between the measurement date, June 30, 2018, and the reporting date, June 30, 2019, that are expected to have a significant effect on the Harbors Division's proportionate share of the State's net pension liability.

For the years ended June 30, 2019 and 2018, the Harbors Division recognized pension expense of $4,525,173 and $4,921,738, respectively. At June 30, 2019 and 2018, the Harbors Division reported deferred outflows of resources and deferred inflows of resources related to pension from the following sources:

	Deferred Outflows of Resources	
	2019	**2018**
Contributions subsequent to the measurement date	$ 2,414,232	$ 2,227,017
Changes in assumptions	3,800,141	5,310,788
Differences between expected and actual experience	643,685	568,232
Changes in proportion and differences between contributions and proportionate share of contributions	110,786	152,938
	$ 6,968,844	$ 8,258,975

	Deferred Inflows of Resources	
	2019	**2018**
Differences between expected and actual experience	$ 202,708	$ 354,197
Changes in proportion and differences between contributions and proportionate share of contributions	268,353	78,384
Net difference between projected and actual earnings on pension plan investments	211,289	129,860
	$ 682,350	$ 562,441

The $2,414,232 reported as deferred outflows of resources related to pension at June 30, 2019 resulting from the Harbors Division's contributions subsequent to the measurement date will be recognized as a reduction of net pension liability in the year ended June 30, 2020. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to pension at June 30, 2019 will be recognized in pension expense as follows:

Year Ended June 30:	
2020	$ 1,828,016
2021	1,527,651
2022	561,293
2023	(48,581)
2024	3,883
	$ 3,872,262

Actuarial Assumptions

The total pension liability in the June 30, 2018 actuarial valuation was determined using the following actuarial assumptions, adopted by the Board of Trustees of the ERS on December 12, 2016, based on the 2015 experience study for the five year period from July 1, 2010 through June 30, 2015:

Inflation	2.50%
Payroll growth rate	3.50%
Investment rate of return	7.00% per year, compounded annually including inflation

There were no changes to ad hoc postemployment benefits including cost of living allowances.

Post-retirement mortality rates are based on the 2016 Public Retirees of Hawaii mortality table, with adjustments based on generational projections of the BB projection table for 2016 and full generational projections in future years. Pre-retirement mortality rates are based on multiples of the RP-2014 mortality table based on the occupation of the member.

The long-term expected rate of return on pension plan investments was determined using a "top down approach" of the Client-Constrained Simulation-based Optimization Model (a statistical technique known as "re-sampling with a replacement" that directly keys in on specific plan-level risk factors as stipulated by the ERS Board of Trustees) in which best-estimate ranges of expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future nominal rates of return (real returns and inflation) by the target asset allocation percentage.

The target allocation and best estimates of geometric real rates of return for each major asset class are summarized in the following table:

Strategic Allocation (Risk-based Classes)	Target Allocation	Long-term Expected Real Rate of Return
Broad growth	63.00%	7.10%
Principal protection	7.00%	2.50%
Real return	10.00%	4.10%
Crisis risk offset	20.00%	4.60%
	100.00%	

Discount Rate

The discount rate used to measure the net pension liability was 7.00%, consistent with the rate used at the prior measurement date. The projection of cash flows used to determine the discount rate assumed that employee contributions will be made at the current contribution rate and that contributions from the State, which includes the Harbors Division, will be made at statutorily required rates, actuarially determined. Based on those assumptions, the pension plan’s fiduciary net position was projected to be available to make all projected future benefit payments of current active and inactive employees. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

Sensitivity of the Harbors Division's Proportionate Share of the State's Net Pension Liability to Changes in the Discount Rate

The following presents the Harbors Division's proportionate share of the State's net pension liability calculated using the discount rate of 7.00%, as well as what the Harbors Division's proportionate share of the State's net pension liability would be if it were calculated using a discount rate that is one percentage point lower (6.00%) or one percentage point higher (8.00%) than the current rate:

	1% Decrease (6.00%)	Discount Rate (7.00%)	1% Increase (8.00%)
Harbor Division's proportionate share of the State's net pension liability	$ 45,671,831	$ 35,113,859	$ 26,406,629

Pension Plan Fiduciary Net Position

The pension plan's fiduciary net position is determined on the same basis used by the pension plan. The ERS' financial statements are prepared using the accrual basis of accounting under which expenses are recorded when the liability is incurred, and revenues are recorded in the period in which they are earned and become measurable. Employer and member contributions are recognized in the period in which the contributions are due. Benefits and refunds are recognized when due and payable in accordance with the terms of the plan. Investment purchases and sales are recorded as of their trade date. Administrative expenses are financed exclusively with investment income.

There were no significant changes after the report measurement date. Detailed information about the pension plan's fiduciary net position is available in the separately issued ERS financial report. ERS's complete financial statements are available at http://www.ers.ehawaii.gov.

Payables to the Pension Plan

The State's employer contributions payable to the ERS was paid by June 30, 2019. Excess payments will be applied to amounts due in fiscal year 2020.

Postemployment Health Care and Life Insurance Benefits

Plan Description

The State provides certain health care and life insurance benefits to all qualified employees. Pursuant to Act 88, SLH 2001, the State contributes to the EUTF, an agent multiple-employer defined benefit plan that replaced the Hawaii Public Employees Health Fund effective July 1, 2003. The EUTF was established to provide single delivery system of health benefits for state and county workers, retirees, and their dependents.

For employees hired before July 1, 1996, the State pays the entire base monthly contribution for employees retiring with ten years or more of credited service, and 50% of the base monthly contribution for employees retiring with fewer than ten years of credited service. A retiree can elect a family plan to cover dependents.

For employees hired after June 30, 1996, but before July 1, 2001, and who retire with less than ten years of service, the State makes no contributions. For those retiring with at least ten years but fewer than 15 years of service, the State pays 50% of the base monthly contribution. For employees retiring with at least 15 years but fewer than 25 years of service, the State pays 75% of the base monthly contribution. For employees retiring with at least 25 years of service, the State pays 100% of the base monthly contribution. Retirees in this category can elect a family plan to cover dependents.

For employees hired on or after July 1, 2001, and who retire with less than ten years of service, the State makes no contributions. For those retiring with at least ten years but fewer than 15 years of service, the State pays 50% of the base monthly contribution. For those retiring with at least 15 years but fewer than 25 years of service, the State pays 75% of the base monthly contribution. For those employees retiring with at least 25 years of service, the State pays 100% of the base monthly contribution. Only single plan coverage is provided for retirees in this category. Retirees can elect family coverage but must pay the difference.

Members Covered by Benefit Terms

At July 1, 2018, the State's plan members covered by benefit terms consisted of the following:

Inactive plan members or beneficiaries currently receiving benefits	36,340
Inactive plan members entitled to but not yet receiving benefits	7,588
Active plan members	50,519
Total plan members	94,447

Contributions

Contributions are governed by HRS Chapter 87A and may be amended through legislation. Contributions to the EUTF from the Harbors Division were $3,083,989 and $2,507,481 for the years ended June 30, 2019 and 2018, respectively. The Harbors Division is required to make all contributions for members.

OPEB Liabilities, OPEB Expense, and Deferred Outflows of Resources and Deferred Inflows of Resources Related to OPEB

Measurement of the actuarial valuation of the OPEB liability, OPEB expense, and deferred outflows of resources and deferred inflows of resources related to OPEB is made for the State as a whole and is not separately computed for the individual state departments and agencies such as the Harbors Division. The State allocates the OPEB liability, OPEB expense, and deferred outflows of resources and deferred inflows of resources related to OPEB to the various departments and agencies based upon a systematic methodology. Additional disclosures and required supplementary information stipulated by Statement No. 75 pertaining to the State's net OPEB liability, OPEB expense, and deferred outflows of resources and deferred inflows of resources related to OPEB can be found in the State's CAFR.

At June 30, 2019 and 2018, the Harbors Division reported a net OPEB liability of $38,353,266 and $38,004,809, respectively, for its proportionate share of the State's net OPEB liability. The net OPEB liability was measured as of July 1, 2018 and 2017, and the total OPEB liability used to calculate the net OPEB liability was determined by an actuarial valuations as of those dates.

At June 30, 2019 and 2018, the Harbors Division's proportionate share of the State's net OPEB liability was 0.55%.

There were no changes between the measurement date, July 1, 2018, and the reporting date, June 30, 2019, that are expected to have a significant effect on the Harbors Division's proportionate share of the State's net OPEB liability.

For the years ended June 30, 2019 and 2018, the Harbors Division recognized OPEB expense of $3,110,127 and $2,467,248, respectively. At June 30, 2019, the Harbors Division reported deferred outflows of resources and deferred inflows of resources related to OPEB from the following sources:

	Deferred Outflows of Resources	
	2019	2018
Contributions subsequent to the measurement date	$ 3,083,989	$ 2,507,481
Changes in assumptions	389,192	-
	$ 3,473,181	$ 2,507,481

	Deferred Inflows of Resources	
	2019	2018
Differences between expected and actual experience	$ 643,049	$ -
Net difference between projected and actual earnings on OPEB plan investments	49,189	48,856
	$ 692,238	$ 48,856

The $3,083,989 reported as deferred outflows of resources related to OPEB resulting from Harbors Division's contribution subsequent to the measurement date will be recognized as a reduction of the net OPEB liability in the year ending June 30, 2020. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to OPEB will be recognized in OPEB expense as follows:

Year Ended June 30:	
2020	$ (66,845)
2021	(66,845)
2022	(66,845)
2023	(52,207)
2024	(50,304)
	$ (303,046)

Actuarial Assumptions

The total OPEB liability in the July 1, 2018 actuarial valuation was determined using the following actuarial assumptions adopted by the Board of Trustees of the EUTF, on January 8, 2018, based on the experience study covering the five year period ended June 30, 2015:

Inflation	2.50%
Salary increases	3.50% to 7.00%, including inflation
Investment rate of return	7.00% net of investment expenses, including inflation
Healthcare cost trend rates:	
PPO*	Initial rate of 10.00%; declining to a rate of 4.86% after 13 years
HMO*	Initial rate of 10.00%; declining to a rate of 4.86% after 13 years
Part B & Base Monthly Contribution (BMC)	Initial rates of 4.00% and 5.00%; declining to a rate of 4.70% after 12 years
Dental	Initial rate of 5.00% for first three years, followed by 4.00%
Vision	Initial rate of 0.00% for first three years, followed by 2.50%
Life insurance	0.00%

* Blended rates for medical and prescription drug.

Mortality rates are based on system-specific mortality tables utilizing scale BB to project generational morality improvement.

The long-term expected rate of return on OPEB plan investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of OPEB plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation.

The target allocation and best estimates of arithmetic real rates of return for each asset class are summarized in the following table:

Asset Class	Target Allocation	Long-Term Expected Real Rate of Return
Non-U.S. equity	17.00%	6.50%
U.S. equity	15.00%	5.05%
Private equity	10.00%	8.65%
Core real estate	10.00%	4.10%
Trend following	9.00%	3.00%
U.S. microcap	7.00%	7.00%
Global options	7.00%	4.50%
Private credit	6.00%	5.25%
Long treasuries	6.00%	1.90%
Alternative risk premia	5.00%	2.45%
TIPS	5.00%	0.75%
Core bonds	3.00%	1.30%
	100.00%	

Single Discount Rate

The discount rate used to measure the net OPEB lability was 7.00%, based on the expected rate of return on OPEB plan investments of 7.00% and the municipal bond rate of 3.62% (based on the daily rate closest to but not later than the measurement date of the Fidelity “20-year Municipal GO AA index”). Beginning with the fiscal year 2019 contribution, the State’s funding policy is to pay the recommended actuarially determined contribution, which is based on layered, closed amortization periods. Based on those assumptions, the OPEB plan’s fiduciary net position was projected to be available to make all projected future benefit payments of current active and inactive plan members. Therefore, the long-term expected rate of return on OPEB plan investments was applied to all periods of projected benefit payments to determine the total OPEB liability.

OPEB Plan Fiduciary Net Position

The OPEB plan's fiduciary net position has been determined on the same basis used by the OPEB plan. The EUTF's financial statements are prepared using the accrual basis of accounting under which revenues are recorded when earned and expenses are recorded at the time liabilities are incurred, regardless of the timing of the cash flows. Employer contributions are recognized in the period in which the contributions are due. Benefits and refunds are recognized when due and payable in accordance with the terms of the plan. Investment purchases and sales are recorded on a trade-date basis. Administrative expenses are financed exclusively with investment income.

There were no significant changes after the report measurement date. Detailed information about the OPEB plan's fiduciary net position is available in the separately issued EUTF financial report. EUTF's complete financial statements are available at http://eutf.hawaii.gov.

Changes in the Harbors Division's Proportionate Share of the State's Net OPEB Liability

The following table represents a schedule of changes in the Harbors Division's proportionate share of the State's net OPEB liability. The ending balances are as of the measurement date, July 1, 2018.

	Total OPEB Liability	Plan Fiduciary Net Position	Net OPEB Liability
Beginning balance	$ 41,151,494	$ 3,146,685	$ 38,004,809
Service cost	841,784	-	841,784
Interest on the total OPEB liability	2,606,357	-	2,606,357
Differences between expected and actual experience	(770,688)	-	(770,688)
Changes in assumptions	466,444	-	466,444
Employer contributions	-	2,507,481	(2,507,481)
Net investment income	-	288,906	(288,906)
Benefit payments	(1,269,072)	(1,269,072)	-
Administrative expense	-	(947)	947
Net changes	1,874,825	1,526,368	348,457
Ending balance	$ 43,026,319	$ 4,673,053	$ 38,353,266

Sensitivity of the Harbors Division's Proportionate Share of the State's Net OPEB Liability to Changes in the Discount Rate and Healthcare Cost Trend Rates

The following table represents the Harbors Division's proportionate share of the State's net OPEB liability calculated using the discount rate of 7.00%, as well as what the Harbors Division's net OPEB liability would be if it were calculated using a discount rate that is one percentage point lower (6.00%) or one percentage point higher (8.00%) than the current discount rate:

	1% Decrease (6.00%)	Discount Rate (7.00%)	1% Increase (8.00%)
Harbor Division's proportionate share of the State's net OPEB liability	$ 45,342,763	$ 38,353,266	$ 32,861,234

The following table represents the Harbors Division's proportionate share of the State's net OPEB liability calculated using the assumed healthcare cost trend rate, as well as what the Harbors Division's net OPEB liability would be if it were calculated using a trend rate that is one percentage point lower or one percentage point higher than the current healthcare cost trend rate:

	1% Decrease	Healthcare Cost Trend Rate	1% Increase
Harbor Division's proportionate share of the State's net OPEB liability	$ 32,561,919	$ 38,353,266	$ 45,869,162

Payables to the OPEB Plan

The State's employer contributions payable to the EUTF was paid by June 30, 2019.

Deferred Compensation

The State offers its employees a deferred compensation plan created in accordance with Internal Revenue Code Section 457. The plan, which is available to all State employees (excluding part-time, temporary, and casual/seasonal), permits employees to defer a portion of their compensation until future years. The deferred compensation is not available to employees until termination, retirement, death, or unforeseeable emergency.

All plan assets are held in a trust fund to protect them from claims of general creditors. The State has no responsibility for loss due to the investment or failure of investment of funds and assets in the plan, but does have the duty of due care that would be required of an ordinary prudent investor. Accordingly, the assets and liabilities of the State's deferred compensation plan are not reported in the State's nor the Harbor Division's financial statements.

13. Risk Management

The State purchases policies to provide coverage for all state entities, including the Harbors Division. The State generally retains the first $1,000,000 per occurrence of property losses such as fires, and 3% of a property replacement cost value for catastrophic losses such as hurricanes, earthquakes, and floods, the first $4,000,000 with respect to general liability claims, and the first $500,000 of losses due to crime and cyber liability. Losses in excess of those retention amounts are insured with commercial insurance carriers. The limit per occurrence for property losses is $200,000,000, except for terrorism, which is $100,000,000 per occurrence. The annual aggregate limit for general liability losses is $9,000,000 per occurrence, $50,000,000 for cyber liability losses, and for crime losses, the limit per occurrence is $10,000,000 with no aggregate limit.

The Harbors Division obtained coverage for certain strategic piers and wharves infrastructure to mitigate its exposure to natural disasters from hurricane, earthquake, and flood (including a tsunami) events. The amount of insurance provided by this difference in conditions policy is $30,000,000 on an annual aggregate basis on a shared perils basis, subject to a $5,000,000 deductible per occurrence.

The State generally self-insures for its automobile no-fault and workers' compensation losses. A liability for workers' compensation and general liability claims is established if information indicates that a loss has been incurred as of June 30, 2019, and the amount of the loss can be reasonably estimated. The liability also includes an estimate for amounts incurred but not reported. Accrued workers' compensation amounted to approximately $1,075,000 and $918,000 at June 30, 2019 and 2018, respectively.

14. Ceded Lands

In 2006, the Legislature enacted Act 178, SLH 2006 (Act 178), to re-establish a mechanism for OHA to receive a portion of the income and proceeds from the Ceded Lands, for native Hawaiians, under Article XII, Sections 4 and 6 of the Hawaii Constitution. Among other things, Act 178 directs state agencies that collect receipts from the Ceded Lands to annually transfer a total of $15,100,000 in four equal quarterly installments to OHA, and directs the Governor to issue an executive order to establish procedures for this purpose. The Governor issued Executive Order No. 06-06 on September 20, 2006.

The Harbors Division transferred $10,000,000 to B&F in four equal quarterly installments pursuant to Governor Executive Order No. 06-06 during the fiscal years ended June 30, 2019 and 2018. The transfers are included in harbor operations costs in the accompanying statements of revenues, expenses and changes in net position for the fiscal years ended June 30, 2019 and 2018.

15. Transactions with Other Government Agencies

The State assesses a surcharge of 5% for central service expenses on all receipts of the Harbors Division, after deducting any amounts pledged, charged, or encumbered for the payment of bonds and interest during the fiscal year. The assessments amounted to approximately $7,475,000 and $6,068,000 for the fiscal years ended June 30, 2019 and 2018, respectively.

The Harbors Division is assessed a percentage of DOT's general administration expenses. The assessments amounted to approximately $2,046,000 and $1,335,000 for the fiscal years ended June 30, 2019 and 2018, respectively.

Act 200, SLH 2008, was enacted to authorize a statewide Harbors Modernization Plan (HMP) to address harbor infrastructure improvements to Kahului Harbor on Maui, Nawiliwili Harbor on Kauai, Hilo and Kawaihae Harbors on Hawaii, and Honolulu and Kalaeloa Harbors on Oahu. In addition to the six commercial harbors included in the plan, the law placed Hana Harbor on Maui under the jurisdiction of the Harbors System and included appropriations for its upgrade. The Act authorizes the DOT to issue harbor revenue bonds to finance the improvements. The cost of the Harbors Modernization Plan, originally estimated at $842 million, was revised to $618 million in 2008. Act 200 also designated the Aloha Tower Development Corporation (the ATDC) as the entity responsible for the management and implementation of the HMP under the direction of the DOT.

The State Legislature in its 2009 legislative session questioned ATDC's role and effectiveness and provided operational funding for only FY2010 of the FY2009-2011 biennium. In its 2010 legislative session, the Legislature did not restore operating funds to ATDC for FY2011, effectively terminating its operations on June 30, 2010. Contracts executed by ATDC for HMP projects were assigned to the Harbors Division, which assumed management and implementation responsibilities for the HMP. The modernization projects have been integrated into the administration's Harbors Modernization Program, a capital improvements program comprised of priority public works projects critical to create jobs and jumpstart the economy.

In the 2011 legislative session, Act 152, SLH 2011 was enacted to remove ATDC from DBEDT and place the agency under the Department of Transportation for administrative purposes, redefine the boundaries of the Aloha Tower complex and repealed references to the HMP, effectively July 1, 2011. Act 152 provides that ATDC is headed by a three-member board comprised of the Directors of Transportation and DBEDT and the Deputy Director of Harbors. The Director of DBEDT chairs the board and the Deputy Director of Harbors serves as the acting Chief Executive Officer for the ATDC. Act 152 also provided that the unencumbered and unexpended fund balance in the Aloha Tower Fund shall lapse to the credit of the Harbor Special Fund to be used for operating expenses for the ATDC. DBEDT transferred the balance of approximately $2.8 million to the Harbor Special Fund pursuant to Act 152. The $2.8 million offset a portion of the $7.8 million balance owed by the ATDC to the Harbors Division for losses in revenue, obligations which were operating expenses for ATDC.

16. Aloha Tower Complex Development

The ATDC is a state agency established under HRS Chapter 206J, primarily to redevelop the Aloha Tower complex. The complex originally encompassed Piers 5 to 23 of Honolulu Harbor, but its boundaries were redefined by Act 152, SLH 2011. In September 1993, the Harbors Division entered into a ground master lease and a capital improvements, maintenance, operations, and security agreement with the ATDC for certain portions of the Aloha Tower complex. The ATDC is required annually to reimburse the Harbors Division for any losses in revenues during the term of the lease caused by any action of the ATDC or the developer and to provide replacement facilities for maritime activities at no cost to the Harbors Division.

On January 18, 2006, an agreement amending the Aloha Tower Project Memorandum of Understanding and Aloha Tower Ground Lease was executed, effective as of June 30, 2005, and retroactive to July 1, 2004 (the Amendment). The Amendment required the ATDC to pay $225,000 as a minimum annual base payment for losses in revenues owing in the fiscal year beginning July 1, 2004. From July 1, 2005, subject to the approval of the Deputy Director for the Harbors Division, the base payment of $225,000 was to be reduced by expenses incurred by the ATDC for the Hawaii Harbors Project Office. The Amendment also required an equity participation payment to be made in an amount of 50% of the difference between the total revenues and total operating expenses of the ATDC for a fiscal year (the equity payment), provided that if the equity payment exceeds two and one-half times the actual operating expenses of the ATDC. These payments were to be applied to reduce the amount owed to the Harbors Division for losses in revenues by the ATDC prior to July 1, 2004. The balance owed to the Harbors Division by the ATDC under this Amendment as of June 30, 2019 and 2018 was approximately $2,977,000 and $3,368,000, respectively, and is included in notes receivable, net of allowance for doubtful accounts for approximately $2,589,000 and $2,977,000 as of June 30, 2019 and 2018, respectively, in the accompanying statements of net position.

At its meeting on July 13, 2011, the ATDC Board approved the transfer of the leasehold interest of the Marketplace to a new operator, Hawaii Lifestyle Retail Properties, (HLRP). HLRP is a limited liability company that consisted at that time of two legal entities, Lifestyle Retail Properties LLC (LRP) and Hawaii Downtown Holdings LLC (HDH); HDH being solely owned by Hawaii Pacific University (HPU). After the transfer of the lease to HLRP in mid 2011, the ATDC discussed various development proposals with HLRP culminating in a memorandum of understanding (MOU) dated December 15, 2011. In the 2012 Hawaii Legislative Session, HPU received legislative support for the issuance of special purpose revenue bonds for improvements to their facilities. In mid 2012, a dispute arose among the owners of HLRP which ultimately resulted in HDH buying out LRP's interest in HLRP and HDH taking control of the leasehold interest in late 2012. The terms of the ATDC's MOU with HLRP, which were performance-based and had not been met, terminated on January 1, 2014. Since the resolution of the owners' dispute within HLRP, HLRP has been reformulating its plans for improvements to the Marketplace leasehold property.

Subsequent to the year ended June 30, 2014, the State, by its Interim Director of the DOT, entered into a successor MOU with the ATDC and HLRP whereby the ATDC agreed to abate rent under the lease between the ATDC and HLRP for the period retroactive to July 1, 2014 to June 30, 2015 in consideration for the construction of HLRP improvements to create student and faculty residences and various university spaces for Hawaii Pacific University and to memorialize the understanding of the parties with respect to various aspects of its agreement.

The successor memorandum of understanding also amended the punchlist obligations owed to the Harbors Division which had a total value of $3.5 million, depending upon when actual payments are made by the operator within a six year timeframe ending June 2017. The amendment provided that in consideration of the ATDC's issuance of any renewed leases, HLRP shall pay the Harbors Division the sum of $1,750,000 on or before December 31, 2021.

17. Kapalama Land Development

Plans for the development of the Kapalama Military Reservation (KMR) site involve the creation of a new cargo container yard and vessel berthing piers, a key priority under the Harbor's Modernization Plan. During the fiscal year ended June 30, 2017, the Airports Division and Harbors Division continued discussions to resolve the use of approximately 11.344 acres of ceded lands under management and control of the Airports Division that are located near the KMR site of which a portion is planned for inclusion into the KMR container yard development.

On December 12, 2017, an agreement was executed between the Airports Division and the Harbors Division, which effectively conveyed the control and management of the subject 11.344 acres to the Harbors Division for an appraised value of $32,820,000. In accordance with the agreement, the Harbors Division made a payment of $16,410,000 to the Airports Division in June 2018. The remaining $16,410,000 was included in the accompanying statements of net position as due to other State agencies as of June 30, 2018 and paid to the Airports Division in June 2019. The total release price of $32,820,000 is included in nondepreciable capital assets as of June 30, 2019 and 2018 in the accompanying statements of net position. The agreement also provided for the payment of $4,159,350 from the Harbors Division to the Airports Division for rental income collected by the Harbors Division. This amount was included in due to other State agencies as of June 30, 2018 and paid on August 7, 2018.

18. Arbitrage

The Harbors Division is required to annually calculate rebates to the U.S. Treasury on the Revenue Bonds issued from 1986. In accordance with the requirements of Section 148 of Internal Revenue Code of 1986, as amended, rebates are calculated by bond series based on the amount by which the cumulative amount of investment income exceeds the amount that would have been earned had funds been invested at the bond yield. In the opinion of management, rebates payable as of June 30, 2019 and 2018, if any, are not material to the financial statements. Accordingly, no rebates payable have been recorded in the accompanying financial statements.

19. Commitments and Contingencies

Construction and Other Contracts

The Harbors Division is committed under contracts awarded for construction and other services. These commitments amounted to approximately $180,808,000 and $198,865,000 at June 30, 2019 and 2018, respectively.

Accumulated Sick Leave Pay

Employees earn sick leave credits at the rate of 14 hours for each month of service depending on the employee's hire date. Unused sick leave may be accumulated without limitation and is not convertible to pay upon termination of employment. Accordingly, no liability for sick pay is recorded. However, for public employees who retire or leave government service in good standing with sixty days or more of unused sick leave, the unused sick leave is converted to additional retirement service credit at the rate of one additional month of service for each 20 days of unused sick leave. The accumulated sick leave liabilities as of June 30, 2019 and 2018 were approximately $6,248,000 and $6,146,000, respectively.

Environmental Issues

Iwilei District Participating Parties

The Harbors Division is subject to laws and regulations relating to the protection of the environment. The Harbors Division has been identified by the State Department of Health as a potentially responsible party for petroleum contamination in the Honolulu Harbor/Iwilei area. Pursuant thereto, the Harbors Division entered into a voluntary agreement with the Department of Health and other third parties to share in the responsibility for the investigation and potential remediation of petroleum contamination in the Iwilei District. This group of potentially responsible parties, known as the Iwilei District Participating Parties (IDPP), has conducted various investigations to determine potential contamination in the Iwilei area from 1997 to present, which investigations have determined the existence of petroleum contamination at various locations. The remediation alternative selected involves the management of the contamination in-place with limited extraction, plume monitoring, active institutional controls including education/awareness and outreach of landowners, potential developers and utility operators, and reimbursement of future incremental project costs attributable to the contamination. However, the project has not yet advanced to the stage where total costs to the IDPP can reasonably be estimated due to: (1) the extent of the environmental impact, (2) the undetermined allocation among the potentially responsible parties, and (3) the continued discussion with the regulatory authorities. Although it is not possible to reasonably estimate the Harbors Division cost liability until these items have been resolved, the Harbors Division, in accordance with GASB Statement No. 49, *Accounting and Financial Reporting for Pollution Remediation Obligations* (GASB 49), accrued only for the estimated cost of the studies and investigations allocated to the Harbors Division of approximately $1,681,000 as of June 30, 2019.

Environmental Protection Agency

During December 2008, the United States Environmental Protection Agency (EPA) conducted an audit to determine Harbors Division's compliance with its Storm Water Environmental Permits (SWMP). As a follow up to this audit, on June 18, 2009, the EPA issued an Administrative Order directing the Harbors Division to revise its Storm Water Management Plan, upgrade environmental inspections and procedures, improve documentation of environmental inspections and follow up actions, establish "Best Management Practices" (BMPs) standards, and include the use of permanent BMPs in any construction projects that are undertaken on Harbor Division premises.

In July 2012, the EPA and the U.S. Department of Justice provided a Compliance Measures draft for the Harbors Division's review and comment. The Compliance Measures draft is intended to be the Injunctive Relief portion of the comprehensive Consent Decree between the United States, the State of Hawaii Department of Health and the Department of Transportation.

On September 18, 2014, the U.S. Department of Justice lodged a proposed Consent Decree with the United States District Court for the District of Hawaii in the lawsuit entitled United States et al. v. Hawaii Department of Transportation, Civil Case No. 14-00408. The Department agreed to correct federal Clean Water Act violations at Honolulu and Kalaeloa Barbers Point Harbors on Oahu, modify departmental administrative and operational procedures and pay a civil penalty of $600,000 plus interest to the U.S. Department of Justice and $600,000 plus interest to the Hawaii Department of Health. Under the conditions of the Consent Decree, the Department is required to implement structural changes to management and a comprehensive stormwater management plan over the life of the Consent Decree. The Consent Decree was entered on November 5, 2014 and payments of $600,160 were remitted accordingly to each party.

The Harbors Division entered into an agreement with Weston Solutions, Inc., an international environmental consulting firm, to assist in negotiating the Compliance Measures for a cost of approximately $600,000, which was amended during fiscal year 2015 to $900,000, of which has been fully paid as of June 30, 2017. The Harbors Division has also entered into an agreement with EnviroServices and Training Center LLC, a Hawaii environmental consulting firm, to assist the Harbors Division in implementing the Compliance Measures at a cost of approximately $400,000 which was later amended to $1,000,000, of which approximately $517,400 has been paid as of June 30, 2019.

Litigation

The Harbors Division is subject to a number of lawsuits arising in the ordinary course of its operations. While the ultimate liabilities, if any, in the disposition of these matters are presently difficult to estimate, it is management's belief that the outcomes are not likely to have a material adverse effect on the Harbors Division's financial position. Accordingly, no provisions for any liabilities that might result have been made in the accompanying financial statements.

20. Subsequent Events

The Harbors Division has evaluated subsequent events from the statements of net position date through November 27, 2019, the date at which the financial statements were available to be issued, and determined that there are no other items to disclose.

SUPPLEMENTARY INFORMATION

Harbors Division
Department of Transportation
State of Hawaii
(An Enterprise Fund of the State of Hawaii)

Cash and Cash Equivalents of the Public Undertaking

June 30, 2019

Unrestricted cash and cash equivalents	$ 226,978,777
Restricted cash and cash equivalents:	
For construction−special purpose funds	143,073,277
For revenue bond debt service payments	23,272,712
For cash reserve requirement for Series A of 2010 revenue bonds	11,455,033
For revenue bond harbors reserve and contingency account	10,897,658
For risk management and other	3,884,184
	192,582,864
	$ 419,561,641

With Director of Finance, State of Hawaii	$ 415,996,872
On hand	3,564,769
	$ 419,561,641

See accompanying independent auditors' report.

Schedule 2

Harbors Division
Department of Transportation
State of Hawaii
(An Enterprise Fund of the State of Hawaii)

Revenue Bonds of the Public Undertaking

June 30, 2019

	Final Redemption Date	Interest Rate	Original Amount of Issue	Balance at June 30, 2019		
				Current	Noncurrent	Total
Issue of 2010	July 1, 2040	3.00-5.75%	$ 201,390,000	$ 5,755,000	$ 154,520,000	$ 160,275,000
Issue of 2013	July 1, 2029	3.25%	23,615,000	3,210,000	13,405,000	16,615,000
Issue of 2016 Series A	January 1, 2024	1.99%	14,565,000	2,040,000	8,590,000	10,630,000
Issue of 2016 Series B	January 1, 2031	2.46-2.89%	68,535,000	2,810,000	56,980,000	59,790,000
Issue of 2016 Series C	July 1, 2020	2.34%	8,135,000	3,530,000	3,605,000	7,135,000
Issue of 2016 Series D	July 1, 2027	3.09%	22,425,000	20,000	22,390,000	22,410,000
			$ 338,665,000	$ 17,365,000	$ 259,490,000	$ 276,855,000

See accompanying independent auditors' report.

Harbors Division
Department of Transportation
State of Hawaii
(An Enterprise Fund of the State of Hawaii)

Income from Operations Before Depreciation

Year Ended June 30, 2019

		District									
		Oahu		Hawaii		Maui			Kauai		
	Statewide	Honolulu	Kalaeloa	Hilo	Kawaihae	Kahului	Kaunakakai	Kaumalapau	Nawiliwili	Port Allen	Total
Operating revenues, net:											
Services:											
Wharfage	$ -	$ 109,260,721	$ 4,985,777	$ 4,889,810	$ 5,892,708	$ 9,910,447	$ 382,805	$ 633,633	$ 4,911,403	$ -	$ 140,867,304
Pax debark/embark	-	4,282,155	-	1,922,712	5,496	1,146,584	5,480	-	1,684,040	-	9,046,467
Dockage	-	3,400,311	718,093	249,099	58,404	268,491	13,994	7,635	257,488	3,442	4,976,957
Demurrage	-	1,398,665	-	181,318	30,324	115,240	-	-	72,260	-	1,797,807
Port Entry	-	657,517	118,669	83,289	35,132	94,231	10,540	6,738	71,537	2,557	1,080,210
Mooring charges	-	533,958	-	12,793	35,407	111	2,490	-	-	823,957	1,408,716
Cleaning charges	-	115,255	-	-	-	-	-	-	-	1,656	116,911
Other services	-	31,254	(157,625)	3,050	4,986	127	393	-	1,516	11,266	(105,033)
Total services	-	119,679,836	5,664,914	7,342,071	6,062,457	11,535,231	415,702	648,006	6,998,244	842,878	159,189,339
Rentals:											
Wharf space and land	-	10,456,423	2,492,111	52,631	414,879	180,617	15,017	300	360,025	242,346	14,214,349
Storage	-	4,678,570	162,952	189,594	422,938	144,234	-	20,208	297,955	21,377	5,937,828
Automobile parking	-	954,896	6,080	99,650	10,814	103,602	1,089	-	145,965	11,795	1,333,891
Pipeline water	-	263,053	5,164	76,076	1,422	105,884	713	-	98,715	-	551,027
Other pipeline	-	2,020,484	2,471,554	1,178,126	216,976	1,367,154	13,355	-	394,139	166,974	7,828,762
Total rentals	-	18,373,426	5,137,861	1,596,077	1,067,029	1,901,491	30,174	20,508	1,296,799	442,492	29,865,857
Others:											
Sale of utilities	-	277,236	128,800	47,918	2,731	116,482	352	-	81,359	6,944	661,822
Miscellaneous	-	938,573	4,077	9,721	5,062	24,869	2,376	577	14,607	290	1,000,152
Total others	-	1,215,809	132,877	57,639	7,793	141,351	2,728	577	95,966	7,234	1,661,974
Total operating revenues	-	139,269,071	10,935,652	8,995,787	7,137,279	13,578,073	448,604	669,091	8,391,009	1,292,604	190,717,170
Operating expenses before depreciation expenses:											
Personal services	9,052,609	8,978,584	226,992	1,162,023	55,493	1,380,177	60,731	(428)	1,313,447	72,607	22,302,235
Harbor operations	10,154,384	3,560,548	700,560	604,373	502,683	897,590	19,154	2,797	620,419	35,261	17,097,769
State of Hawaii surcharge for central service expenses	7,475,000	-	-	-	-	-	-	-	-	-	7,475,000
General administration	3,698,139	40,028	1,525	33,085	5,265	14,114	1,244	-	20,099	1,555	3,815,054
Department of Transportation general administration	2,046,113	-	-	-	-	-	-	-	-	-	2,046,113
Maintenance	458,144	673,450	19,749	211,962	76,843	153,437	143,092	10,856	159,297	18,129	1,924,959
Subtotal	32,884,389	13,252,610	948,826	2,011,443	640,284	2,445,318	224,221	13,225	2,113,262	127,552	54,661,130
Allocation of statewide expenses (1)	(32,884,389)	24,013,455	1,885,579	1,551,098	1,230,645	2,341,198	77,350	115,368	1,446,819	222,877	-
Total operating expenses before depreciation expense	-	37,266,065	2,834,405	3,562,541	1,870,929	4,786,516	301,571	128,593	3,560,081	350,429	54,661,130
Income from operations before depreciation expense	$ -	$ 102,003,006	$ 8,101,247	$ 5,433,246	$ 5,266,350	$ 8,791,557	$ 147,033	$ 540,498	$ 4,830,928	$ 942,175	$ 136,056,040

Note (1): Statewide expenses are allocated to the Harbors Division based upon their respective current year operating revenues to total current year operating revenues for all Harbors.

See accompanying independent auditors' report.

Harbors Division
Department of Transportation
State of Hawaii
(An Enterprise Fund of the State of Hawaii)

Harbor Revenue Bonds 1997 Certificate – Minimum Net Revenue
Requirement of the Public Undertaking

Year Ended June 30, 2019

Net revenues, as defined by the 1997 Certificate:		
Operating income before depreciation expense	$	136,056,040
Add:		
Interest income		7,887,537
State of Hawaii, surcharge for central service expenses		7,475,000
Cash available in the harbor reserve and contingency account		10,897,658
	$	162,316,235
Harbor revenue bond debt service requirements under the 1997 Certificate, including minimum sinking fund payments	$	28,936,451
Ratio of net revenues to harbor revenue bond debt service requirements		5.61

See accompanying independent auditors’ report.

PART III

INTERNAL CONTROL AND COMPLIANCE SECTION

KKDLY LLC
CERTIFIED PUBLIC ACCOUNTANTS

Independent Auditors' Report on Internal Control Over Financial Reporting and on Compliance and Other Matters Based on an Audit of Financial Statements Performed in Accordance with *Government Auditing Standards*

The Auditor
State of Hawaii:

We have audited, in accordance with the auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States, the statements of net position of the Harbors Division, Department of Transportation, State of Hawaii (the Harbors Division), as of June 30, 2019 and 2018, and the related statements of revenues, expenses, and changes in net position, and cash flows for the years then ended, and the related notes to financial statements, which collectively comprise the Harbors Division's basic financial statements, and have issued our report thereon dated November 27, 2019.

Internal Control over Financial Reporting

In planning and performing our audit of the financial statements, we considered the Harbors Division's internal control over financial reporting (internal control) to determine the audit procedures that are appropriate in the circumstances for the purpose of expressing our opinion on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the Harbors Division's internal control. Accordingly, we do not express an opinion on the effectiveness of the Harbors Division's internal control.

A *deficiency in internal control* exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, misstatements on a timely basis. A *material weakness* is a deficiency, or a combination of deficiencies, in internal control, such that there is a reasonable possibility that a material misstatement of the entity's financial statements will not be prevented, or detected and corrected on a timely basis. A *significant deficiency* is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

Our consideration of internal control was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or significant deficiencies. Given these limitations, during our audit we did not identify any deficiencies in internal control that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.

Topa Financial Center | 745 Fort Street | Suite 2100 | Honolulu, Hawaii 96813
P: 808.521.3962 | F: 808.531.3217 | www.kkdly.com

Compliance and Other Matters

As part of obtaining reasonable assurance about whether the Harbors Division's financial statements are free from material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could have a direct and material effect on the determination of financial statement amounts. However, providing an opinion on compliance with those provisions was not an objective of our audit, and accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards*.

Purpose of this Report

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the entity's internal control or on compliance. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the entity's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

KKDLY LLC

Honolulu, Hawaii
November 27, 2019

APPENDIX B

GENERAL INFORMATION ABOUT THE STATE OF HAWAII

APPENDIX B

GENERAL ECONOMIC INFORMATION ABOUT THE STATE OF HAWAII

The statistical information presented by this APPENDIX B is the most current information available to the State. Because such information becomes available at different times, the dates of such information, as presented herein, are not the same.

INTRODUCTION

The State was admitted into the Union on August 21, 1959, as the fiftieth state. It is an archipelago of eight major islands, seven of which are inhabited, plus 124 named islets, totaling 6,425 square miles in land area, located in the Pacific Ocean in the Northern Hemisphere, mostly below the Tropic of Cancer, about 2,400 statute miles from San Francisco. The State is slightly larger than the combined area of the States of Connecticut and Rhode Island and ranks forty-seventh of the fifty states in land area, being also larger in area than the State of Delaware. The island of Hawaii is the largest island, with 4,028 square miles in area. The other inhabited islands, in order of size, are Maui, Oahu, Kauai, Molokai, Lanai and Niihau. According to the U.S. Census, the total population of the State was 422,770 in 1940, 499,794 in 1950, 632,772 in 1960, 769,913 in 1970, 964,691 in 1980, 1,115,274 in 1990, 1,211,537 in 2000, and 1,360,301 in 2010, making the State the 40th most populous state in the Union as of 2010. The City and County of Honolulu consists of the island of Oahu (plus some minor islets) with a land area of 599.8 square miles. The capital of the State and the principal port, Honolulu, are located on Oahu. According to the 2010 U.S. Census, about 70.1 percent of the population of the State lives on Oahu. Hawaii's population exhibits greater ethnic diversity than other states because it is descended from immigrants from Asia as well as from Europe and the mainland United States. Based on the 2010 U.S. Census, approximately 38.6 percent of the State's population is of Asian descent and about 24.7 percent of the State's population is Caucasian. Native Hawaiians and other Pacific Islanders constitute 10.0 percent of the population. The balance consists of people of mixed races and other races, such as African Americans and American Indians.

GENERAL ECONOMIC INFORMATION

General

The following material pertaining to economic factors in the State of Hawaii (the "*State*" or "*Hawaii*") has been excerpted from the State of Hawaii State Department of Business, Economic Development and Tourism ("*DBEDT*") Third Quarter 2020 Quarterly Statistical and Economic Report ("*QSER*") or from other materials prepared by DBEDT, some of which may be found at http://dbedt.hawaii.gov/. Unless otherwise stated, the following information is historical, estimated figures are used only when the definitive figures are unavailable. Unless otherwise specifically stated, all references to years and quarters in the following information are for calendar years and calendar quarters, respectively. The following descriptions of certain components of the State's economy are primarily related to the visitor industry, and DBEDT's outlook for the economy are below under "**State of the Economy**" as well as brief descriptions in the "**Outlook for the Economy**" and "**Tourism**" sections below explaining the impact of these components on the State's fiscal position.

The coronavirus pandemic ("*COVID-19*") has had severe and unprecedented impact on the economy of the State, causing hotels, shopping malls, airlines, restaurants, retailers, service professionals, and a wide variety of Hawaii businesses to significantly reduce or shut down operations. Such public health measures were needed to curb the spread of COVID-19 throughout the state. As a result, in its third quarter 2020 Statistical and Economic Report, DBEDT projected Hawaii's economy will contract by 12.3 percent in 2020, a slight deterioration from the 12.1 percent contraction forecast in May. The revision is mainly due to the delayed pre-test program for trans-Pacific travel and the two-week Stay-at-Home, Work-from-Home order originally imposed on Oahu in March 2020. Due to the increase in confirmed COVID-19 cases in Hawaii and in many of the states where Hawaii visitors were arriving from and where Hawaii residents often visited such as California, Arizona and Nevada, the start of the pre-test program for U.S. mainland visitors to Hawaii initially planned to start on September 1, 2020 was deferred until October 15, 2020.

Because the global COVID-19 pandemic and accompanying tourism shutdown are unprecedented, the State's economic forecast cannot be generated using past trends; however, basic relationships between economic variables remain unchanged, such as the relationship between job count and unemployment, personal income and GDP. DBEDT's forecast is based on a number of factors as described in the "**Outlook for the Economy**" section below.

State of the Economy

Hawaii's major economic indicators were mainly negative in the second quarter of 2020. Visitor arrivals, wage and salary jobs, private building authorizations, and State general fund tax revenues all decreased in the quarter compared to the second quarter of 2019. Only government contracts awarded increased in the quarter.

In the second quarter of 2020, the total number of visitors arriving by air to Hawaii decreased 2,576,293 or 98.8 percent to 30,748. Due to the reduced number of visitors, the daily visitor census decreased 96.2 percent in the second quarter.

In the second quarter of 2020, jobs in the natural resources, mining and construction sector increased 0.8 percent or 300 jobs to 37,300 jobs compared with the same quarter of 2019. The government contracts awarded increased from $129.1 million in the second quarter of 2019 to $582.4 million in the second quarter of 2020. In the second quarter of 2020, the permit value for private construction decreased $115.8 million or 14.3 percent to $693.1 million compared with the same quarter of 2019. According to the most recent excise tax base data available, current construction put-in-place increased $118.4 million or 5.0 percent to $2.468 billion in the first quarter of 2020, compared with the same quarter of the previous year.

In the second quarter of 2020, State general fund tax revenues were down $722.6 million or 34.4 percent to $1.378 billion from the same period of 2019. The net individual income tax revenues decreased $359.7 million or 40.5 percent to $528 million, the state general excise tax revenue decreased $221.3 million or 24.6 percent to $677.1 million, and the transient accommodations tax (TAT) decreased $103.3 million or 68.6 percent to $47.2 million. In the first half of 2020, State general fund tax revenues decreased $619.7 million or 16.4 percent to $3.169 billion, and state general excise tax revenue decreased $166.4 million or 9.2 percent to $1.648 billion, compared to the same period of the previous year.

Labor market conditions were all negative. In the second quarter of 2020, Hawaii's non-agricultural wage and salary jobs averaged 535,200 jobs, a decrease of 118,400 jobs or 18.1 percent from the same quarter of 2019.

In this quarter, the private sector lost about 106,300 non-agricultural jobs to 535,200 jobs compared to the second quarter of 2019. The largest decrease was in Food Services and Drinking Places, which lost 35,400 jobs or 50.7 percent to 34,400 jobs. Accommodation lost 25,800 jobs or 60.8 percent to 16,600 jobs. Transportation, Warehousing & Utilities lost 8,500 jobs or 25.1 percent to 25,300 jobs. Retail Trade lost 7,300 jobs or 10.3 percent to 63,300 jobs. Professional & Business Services lost 7,100 jobs or 9.7 percent to 66,000 jobs. Arts, Entertainment & Recreation lost 6,600 jobs or 47.8 percent to 7,200 jobs in the quarter. The Government sector lost 12,100 jobs or 9.5 percent in the second quarter of 2020 to 115,900 jobs, compared to the same quarter of 2019. The Federal Government added 100 jobs or 0.3 percent to 34,000 jobs, the State Government lost 11,700 jobs or 15.6 percent to 63,300 jobs, and the Local Government lost 400 jobs or 2.1 percent to 18,600 jobs, compared to the second quarter of 2019.

In the first quarter of 2020, total annualized nominal GDP increased $995 million or 1.0 percent to $97.089 billion from the first quarter of 2019. In 2019, total annualized nominal GDP increased $3.484 billion or 3.7 percent to $97.292 billion from the previous year. In the first quarter of 2020, total annualized real GDP (in chained 2012 dollars) decreased $1.081 billion or 1.3 percent to $82.188 billion from the first quarter of 2019. In 2019, total annualized real GDP increased $858 million or 1.0 percent to $83.509 billion from the previous year.

In the first quarter of 2020, total non-farm private sector annualized earnings increased $186.6 million or 0.5 percent to $40.680 billion from the first quarter of 2019. In dollar terms, the largest increase occurred in health care and social assistance; followed by finance and insurance, administrative & waste management services, retail trade, and transportation and warehousing. During the first quarter of 2020, total government earnings increased $352.7 million or 2.2 percent to $16.421 billion from the same quarter of 2019. Earnings from the federal government increased $312.3

million or 3.5 percent to $9.338 billion. Earnings from the state and local governments increased $40.5 million or 0.8 percent to $7.288 billion in the quarter.

Outlook for the Economy

Hawaii's economy has been greatly impacted by the COVID-19 pandemic. During the April-July 2020 period, the average unemployment rate (not seasonally adjusted) was 18.5 percent. Hawaii lost 115,000 non-agriculture payroll jobs during the April-July period as compared with the same period a year ago. All industry sectors lost jobs except construction and federal civilian jobs. The leisure and hospitality sector accounted for 58.7 percent of the total job loss at 67,500.

Hawaii initial unemployment claims started to rise mid-March and peaked at 53,112 during the first week of April and then gradually declined. During the second week of August, initial unemployment claims were still above 5,000 per week. During 2012-2019 period, the weekly initial unemployment claims averaged 1,442 per week.

Visitor arrivals to the State during the second quarter of 2020 totaled 30,748, a decrease of 98.8 percent from the same quarter in 2019. However, these visitors stayed longer in Hawaii with average length of stay at 27.3 days. In 2019 the average length of stay was 8.8 days.

Value of private building permits showed a decrease of 14.3 percent to $693.1 million during the second quarter of 2020. The largest decrease occurred in the additions and alterations category which was down by 40.7 percent to $248.8 million. Value of residential building permits was down by 3.9 percent to $310.6 million and the value for commercial and industrial category was up by 101.2 percent to $133.8 million during the same period. Though the value of private building permits was down, state government spending on capital investment projects (CIP) was up by 10.7 percent to $471.1 million during the same time period. State government spent an average of nearly $1.5 billion a year on CIP projects during the last three years (2017-2019).

As of August 25, 2020, federal funds allocated to Hawaii totaled $8.4 billion. Most of these federal funds has been or will be received as household income and will be spent by Hawaii households. These funds helped mitigate the economic impact from COVID-19.

At the national level, the U.S. economic growth rate was at 0.3 percent during the first quarter and declined by 9.1 percent in the second quarter, as compared to the same quarter in 2019. The Blue Chip Economic Indicators report from Aug. 10, 2020, which is the consensus of 50 economic forecasting organizations, projected that the U.S. economic growth rate for 2020 will decrease by 5.2 percent. The report projected a positive 3.8 percent U.S. economic growth for 2021. The Blue Chip forecasts for foreign countries were all negative except China and India which showed small growth.

Based on the above development, and the delayed pre-test program for transpacific travel coupled with the August 25th two-week Stay-at-Home, Work-from-Home Order for Oahu, DBEDT projects that Hawaii's economic growth rate, as measured by the real gross domestic product (GDP), will drop by 12.3 percent in 2020, then will increase at 2.1 percent in 2021, 2.0 percent in 2022, and 1.2 percent in 2023.

The current version of the economic forecast assumes that the state will start the pre-test program for trans-Pacific travelers in early November and no further lockdown of major businesses after the two-week Stay-at-Home, Work-from-Home Order for Oahu which started on August 27, 2020.

Hawaii will welcome 2.9 million visitors in 2020, a decrease of 71.9 percent from the 2019 level. Visitor arrivals will increase to 7.2 million in 2021, 8.3 million in 2022, and 9.4 million in 2023. Visitor spending will decrease 67.8 percent in 2020, then will increase 109.1 percent in 2021, 18.8 percent in 2022, and 14.7 percent in 2023.

Non-agriculture payroll jobs will shrink by 12.1 percent in 2020, then will increase by 8.5 percent in 2021, 2.0 percent in 2022, and 1.5 percent in 2023.

Overall for 2020, the average annual unemployment rate will be at 10.9 percent, then decrease to 7.2 percent in 2021, 6.6 percent in 2022, and 6.3 percent in 2023. These rates are much higher than the average Hawaii unemployment rate of 2.5 percent 2017 to 2019.

Nominal personal income is expected to decrease by 12.1 percent in 2020, then will increase by 5.3 percent in 2021 and 3.9 percent in 2022. Nominal personal income growth rate will be at 3.0 percent in 2023.

Hawaii's consumer inflation rate, as measured by the Honolulu Consumer Price Index for All Urban Consumers, will increase at rates between 1.4 to 1.8 for the next few years.

Hawaii's population is expected to be unchanged in 2020 and increase only by 0.1 percent in 2021, and 0.3 percent each year thereafter. Though international migration (usually net in-migration) may be halted in 2020, domestic migration (usually net out-migration) is likely to be on hold as well in 2020.

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Table 1
SELECTED ECONOMIC ACTIVITIES: STATE

SERIES	2nd QUARTER 2019	2nd QUARTER 2020	2nd QUARTER % CHANGE YEAR AGO	YEAR-TO-DATE 2019	YEAR-TO-DATE 2020	YEAR-TO-DATE % CHANGE YEAR AGO
Civilian labor force, NSA (persons) 1/	663,150	624,600	-5.8	664,600	647,350	-2.6
Civilian employed, NSA	644,400	496,350	-23.0	646,050	574,500	-11.1
Civilian unemployed, NSA	18,800	128,250	582.2	18,550	72,850	292.7
Unemployment rate, NSA (%) 1/ 2/	2.8	20.5	17.7	2.8	11.5	8.7
Total wage and salary jobs, NSA	658,600	539,200	-18.1	660,550	600,750	-9.1
Total non-agric. wage & salary jobs	653,600	535,200	-18.1	655,500	596,300	-9.0
Nat. Resources, Mining, Constr.	37,000	37,300	0.8	36,900	37,400	1.4
Manufacturing	14,000	11,300	-19.3	14,100	12,600	-10.6
Wholesale Trade	18,200	15,800	-13.2	18,300	16,900	-7.7
Retail Trade	70,600	63,300	-10.3	71,100	66,700	-6.2
Transp., Warehousing, Util.	33,800	25,300	-25.1	33,900	29,900	-11.8
Information	8,200	7,500	-8.5	8,700	7,900	-9.2
Financial Activities	29,900	27,500	-8.0	29,800	28,500	-4.4
Professional & Business Services	73,100	66,000	-9.7	73,700	70,200	-4.7
Educational Services	14,100	11,600	-17.7	14,300	13,000	-9.1
Health Care & Social Assistance	72,300	70,900	-1.9	72,500	72,100	-0.6
Arts, Entertainment & Recreation	13,800	7,200	-47.8	13,800	10,400	-24.6
Accommodation	42,400	16,600	-60.8	42,500	29,700	-30.1
Food Services & Drinking Places	69,800	34,400	-50.7	69,900	52,500	-24.9
Other Services	28,400	24,600	-13.4	28,400	26,300	-7.4
Government	128,000	115,900	-9.5	127,700	122,100	-4.4
Federal	33,900	34,000	0.3	34,000	34,300	0.9
State	75,000	63,300	-15.6	74,800	69,100	-7.6
Local	19,000	18,600	-2.1	18,900	18,700	-1.1
Agriculture wage and salary jobs	5,000	4,000	-20.0	5,000	4,500	-10.0
State general fund revenues ($1,000)	2,100,839	1,378,238	-34.4	3,789,027	3,169,285	-16.4
General excise and use tax revenues	898,376	677,077	-24.6	1,814,731	1,648,350	-9.2
Income-individual	887,762	528,080	-40.5	1,412,013	1,088,136	-22.9
Declaration estimated taxes	397,455	146,291	-63.2	537,845	346,548	-35.6
Payment with returns	165,974	72,013	-56.6	204,805	113,920	-44.4
Withholding tax on wages	524,730	479,038	-8.7	1,071,995	1,050,570	-2.0
Refunds ('-' indicates relative to State)	-200,398	-169,182	-15.6	-402,632	-422,821	5.0
Transient accommodations tax	150,535	47,225	-68.6	317,690	244,370	-23.1
Honolulu County Surcharge 3/	77,835	47,918.6	-38.4	155,863	138,352	-11.2
Private Building Permits ($1,000)	808,957	693,130	-14.3	1,569,983	1,477,923	-5.9
Residential	323,215	310,584	-3.9	633,147	539,237	-14.8
Commercial & industrial	66,470	133,758	101.2	112,645	254,223	125.7
Additions & alterations	419,272	248,788	-40.7	824,191	684,464	-17.0
Visitor Days - by air	22,255,007	838,075	-96.2	44,891,780	20,260,480	-54.9
Domestic visitor days - by air	17,120,784	829,162	-95.2	33,146,658	15,196,136	-54.2
International visitor days - by air	5,134,223	8,913	-99.8	11,745,122	5,064,344	-56.9
Visitor arrivals by air - by air	2,607,041	30,748	-98.8	5,094,146	2,126,443	-58.3
Domestic flight visitors - by air	1,915,973	29,887	-98.4	3,597,993	1,513,303	-57.9
International flight visitors - by air	691,068	861	-99.9	1,496,153	613,140	-59.0
Visitor expend. - arrivals by air ($1,000)	4,347,732	(NA)	(NA)	8,828,796	(NA)	(NA)
Hotel occupancy rates (%) 2/	80.3	12.9	-67.4	80.5	49.7	-30.8

NA Not available.
1/ Labor force and jobs are Hawaii DLIR monthly and annual data. Quarterly averages computed by the Hawaii DBEDT.
2/ Change represents absolute change in rates rather than percentage change in rates.
3/ 0.5% added to the general excise tax to pay for O'ahu's mass transit system and took effect January 1, 2007.
Includes taxpayers who have business activities on Oahu but whose businesses are located outside Oahu.
Source: Hawaii State Department of Business, Economic Development, & Tourism <http://www.hawaii.gov/dbedt/info>,
Hawaii State Department of Labor & Industrial Relations <http://www.hiwi.org/cgi/dataanalysis/?PAGEID=94>;
Hawaii State Department of Taxation <http://www.hawaii.gov/tax/a5_3txcolrpt.htm> and Hospitality Advisors, LLC. 8/28/2020

Table 2
ACTUAL AND FORECAST KEY ECONOMIC INDICATORS FOR HAWAII
2018 TO 2023

Economic Indicators	2018	2019	2020	2021	2022	2023
	(Actual)		(Forecast)			
Total population (thousands)	1,421	1,416	1,416	1,417	1,421	1,425
Visitor arrivals (thousands) 1/	9,889	10,425	3,392	6,241	8,340	9,397
Visitor days (thousands) 1/	88,285	90,892	29,536	54,257	72,401	81,453
Visitor expenditures (million dollars) 1/	17,643	17,754	5,534	10,360	14,248	16,348
Honolulu CPI-U (1982-84=100)	277.1	281.6	283.0	287.0	291.6	296.5
Personal income (million dollars)	78,721	81,342	73,039	74,910	76,718	78,898
Real personal income (millions of 2012$) 2/	61,931	63,169	56,473	57,264	57,894	58,762
Non-agricultural wage & salary jobs (thousands)	658.3	655.7	597.3	621.8	639.9	648.2
Civilian unemployment rate 3/	2.4	2.7	8.6	7.3	6.5	6.2
Gross domestic product (million dollars)	93,798	97,282	86,786	89,012	91,162	93,756
Real gross domestic product (millions of 2012$)	82,652	83,509	73,374	73,873	74,349	75,157
Gross domestic product deflator (2012=100)	113.5	116.5	118.3	120.5	122.6	124.7
Annual Percentage Change						
Total population	-0.3	-0.3	0.0	0.1	0.3	0.3
Visitor arrivals 1/	5.2	5.4	-67.5	84.0	33.6	12.7
Visitor days 1/	4.9	3.0	-67.5	83.7	33.4	12.5
Visitor expenditures 1/	5.1	0.6	-68.8	87.2	37.5	14.7
Honolulu CPI-U	1.9	1.6	0.5	1.4	1.6	1.7
Personal income	4.0	3.3	-10.2	2.6	2.4	2.8
Real personal income 2/	2.6	2.0	-10.6	1.4	1.1	1.5
Non-agricultural wage & salary jobs	0.5	-0.4	-8.9	4.1	2.9	1.3
Civilian unemployment rate 3/	0.0	0.3	5.9	-1.3	-0.8	-0.3
Gross domestic product	4.9	3.7	-10.8	2.6	2.4	2.8
Real gross domestic product	2.4	1.0	-12.1	0.7	0.6	1.1
Gross domestic product deflator (2012=100)	2.4	2.6	1.5	1.9	1.8	1.7

1/ Visitors who came to Hawaii by air or by cruise ship. Expenditures includes supplementary expenditures. 2019 supplementary expenditure was estimated by DBEDT.

2/ Using personal income deflator developed by the U.S. Bureau of Economic Analysis and estimated by DBEDT.

3/ Absolute change from previous year.

Source: Hawaii State Department of Business, Economic Development & Tourism, May 21, 2020.

Tourism

Due to the impact of COVID-19, domestic visitor arrivals and international visitor arrivals both decreased in the first eight months of 2020. Due to longer lengths of stay, the daily visitor census decreased less than the decrease of visitor arrivals in the quarter.

The total number of visitor arrivals by air decreased to 2,220,009 or 71.6 percent in the first nine months of 2020, compared to 7,828,965 in the first nine months of 2019. In September 2020 the total number of visitor arrivals by air decreased to 18,868 or 97.4 percent from 736,155 in September 2019. The total average daily census decreased to 81,263 or 67.4 percent in the first none months of 2020 from 249,623 in the first nine months of 2019. In September 2020, average daily census decreased to 20,910 or 89.9 percent from 206,169 for the same period of the previous year.

In September 2020, total visitor arrivals on domestic flights decreased to 16,027, or 96.3 percent compared to 438,993 in the same month of 2019. In the first nine months of 2020, domestic arrivals decreased to 1,508,289, or 71.1 percent from 5,210,250 for the same period of the previous year.

Arrivals on international flights decreased to 2,842 or 99 percent in September 2020 compared to 279,048 in September 2019. In the first nine months of 2020, international arrivals decreased to 683,929 from 2,523,565, for the same period of the previous year.

In terms of major market areas, in September 2020, arrivals from the U.S. West decreased to 9,964 or 96.7 percent from 305,806, arrivals from the U.S. East decreased to 6,033 or 95.5 percent from 133,185 and arrivals from Japan decreased to 79 or 99.8 percent from 143,928. In the first nine months of 2020, arrivals from the U.S. West decreased to 963,552 or 72.1 percent from 3,447,548; arrivals from the U.S. East decreased to 544,736 or 69.1 percent from 1,762,702; and Japanese arrivals decreased to 294,647 or 74.9 percent from 1,173,477 from the same period of the previous year.

In September 2020, the length of stay per visitor increased. Due to the longer length of stay, the average total daily visitor census decreased less than the decrease in visitor arrivals in the quarter. The total average daily visitor census decreased to 20,910 or 89.7 percent from 202,987 visitors per day in September 2020, from the same month in 2019. The domestic average daily census decreased to 17,945 or 86.1 percent from 128,879 visitors per day while the Japanese average daily census decreased to 59 or 99.8 percent from 28,343 visitors per day. In the first nine months of 2020, the total average daily census decreased to 80,746 or 67.4 percent from 247,988 from the same period of the previous year.

According to the most recent data available, nominal visitor expenditures by air totaled $3,879.4 million in the first quarter of 2020, down 14.2 percent or $640.5 million from the same quarter of 2019. In 2019, visitor expenditures increased $237.8 million or 1.4 percent from the previous year.

Total airline capacity, as measured by the number of available seats flown to Hawaii, decreased 84.6 percent to 156,220 seats in September 2020. In the first half of 2020, the number of total available seats decreased 43.0 percent or 2,881,499 seats to 3,827,280 from the same period of the previous year. There were no direct flights or scheduled seats from Canada, Oceania and other Asia, and very few scheduled seats from the U.S. East, U.S. West or Japan.

In September 2020, the statewide hotel occupancy rate averaged 19.6 percent, 59.4 percentage points lower than the same quarter of 2019. In the first nine months of 2020, the statewide hotel occupancy rate averaged 42.5 percent, 38.8 percentage points lower than the same period of the previous year.

The following historical statistical information regarding the visitor industry should be viewed in that context.

Table 3
VISITOR ARRIVALS BY AIR
Average Length of Stay, Visitor Days, Average Daily Census

	2016	2017	2018	2019	% Change 2016-2017	% Change 2017-2018	% Change 2018-2019
Total Arrivals							
Total	8,821,802	9,277,613	9,761,448	0,282,160	5.2	5.2	5.3
Domestic	5,968,779	6,239,748	6,736,736	7,251,489	4.5	8.0	7.6
International	2,853,023	3,037,865	3,024,712	3,030,671	6.5	-0.4	0.2
Average Length of Stay							
Total	9.0	9.0	9.0	8.8	0.1	-0.3	-2.4
Domestic	9.7	9.6	9.5	9.2	-0.5	-1.5	-3.0
International	7.6	7.8	7.9	7.8	1.9	1.9	-1.3
Visitor Days							
Total	79,451,460	83,608,118	87,724,599	90,229,030	5.2	4.9	2.9
Domestic	57,652,742	59,959,536	63,732,896	66,513,478	4.0	6.3	4.4
International	21,798,718	23,648,582	23,991,703	23,715,552	8.5	1.5	-1.2
Average Daily Census							
Total	217,675	229,063	240,341	247,203	5.2	4.9	2.9
Domestic	157,953	164,273	174,611	182,229	4.0	6.3	4.4
International	59,723	64,791	65,731	64,974	8.5	1.5	-1.2

Source: Hawaii Tourism Authority.

Table 4
HOTEL OCCUPANCY RATE (%)

Year	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	**Annual Average**
In Percent					
1982	79.0	65.9	70.9	66.7	70.4
1983	75.2	68.1	71.7	66.5	69.7
1984	84.0	75.6	74.6	75.1	76.0
1985	88.1	69.1	75.0	72.5	76.1
1986	87.0	78.8	79.9	76.8	81.7
1987	88.0	77.1	82.1	77.8	81.1
1988	81.7	75.1	81.3	75.1	78.5
1989	85.9	73.9	81.0	75.7	79.0
1990	83.9	75.5	81.0	74.3	78.8
1991	68.2	70.7	79.7	72.5	72.4
1992	75.3	68.6	75.5	75.2	72.7
1993	75.3	67.9	73.8	72.5	72.0
1994	80.9	72.7	79.1	74.8	76.5
1995	79.5	70.3	79.2	75.1	75.8
1996	81.9	72.3	77.1	70.0	75.2
1997	79.5	70.8	75.5	69.9	73.9
1998	77.4	68.7	72.9	67.7	71.5
1999	77.0	67.7	75.0	68.7	72.1
2000	79.2	75.2	78.5	73.1	76.0
2001	80.7	70.7	70.3	57.2	69.2
2002	71.7	67.9	72.5	67.1	69.7
2003	74.4	67.1	77.4	71.3	72.6
2004	80.2	75.7	81.5	73.4	77.7
2005	83.8	78.4	84.8	77.2	81.1
2006	83.6	78.2	82.5	74.1	79.5
2007	77.5	72.0	78.6	72.0	75.0
2008	78.7	68.8	70.5	63.8	70.4
2009	66.7	63.7	67.3	63.5	64.8
2010	70.6	67.3	75.2	69.5	70.7
2011	76.6	68.6	76.1	71.9	73.2
2012	80.3	73.8	78.9	74.5	76.9
2013	82.0	74.2	77.8	72.3	76.5
2014	80.8	74.0	78.7	74.7	77.0
2015	80.0	77.7	79.4	77.8	78.7
2016	80.7	77.5	80.5	77.5	79.0
2017	81.4	79.4	81.4	78.6	80.2
2018	83.5	81.1	80.1	76.4	80.3
2019 1/	80.5	80.3	82.6	79.4	81.2
2020 1/	70.6	12.9	(NA)	Year-to-Date	49.7

NA Not available.

The 2nd, 3rd, and 4th Quarter averages are computed by Hawaii State Department of Business, Econo Development & Tourism from PKF-Hawaii monthly averages through January 1995 and Hospitality Adv LLC monthly averages from February 1995. The 1st quarter and Annual are as released or revised by so

1/ Source revises each month of previous year when current year is released.

Source: Hawaii State Department of Business, Economic Development & Tourism, PKF-Hawaii and Hospitality Advisors LLC.

APPENDIX C

SUMMARY OF CERTAIN PROVISIONS OF THE CERTIFICATE

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APPENDIX C

SUMMARY OF CERTAIN PROVISIONS OF THE CERTIFICATE

The following is a summary of certain of the provisions of the Certificate of the Director of Transportation of the State of Hawaii dated as of March 1, 1997, as amended (the "Certificate"). The summary does not purport to be complete or to follow the exact language of the Certificate and, accordingly, is qualified by reference thereto and is subject to the full text thereof. Capitalized terms not otherwise previously defined in this Official Statement or defined below have the meanings set forth in the Certificate. For the complete provisions of the Certificate and the precise wording thereof, reference should be made to the Certificate, copies of which are available upon request at the office of Bond Counsel or the Department. Unless clearly indicated otherwise, all section references are to the Certificate only.

The Capital Improvement Bonds and the 1990 Certificate Harbor Revenue Bonds referred to in the summary of the Certificate presented by this APPENDIX C no longer are Outstanding, and no additional Capital Improvement Bonds or 1990 Certificate Harbor Revenue Bonds will be issued. Accordingly, the references in this APPENDIX C to the Capital Improvement Certificate, the Capital Improvement Bonds, the Capital Improvement Special Fund, the Capital Improvement Debt Service Reserve Account, the 1990 Certificate and the 1990 Certificate Harbor Revenue Bonds no longer apply. In addition, the Certificate provides for the consolidation of the 1997 Certificate Harbor Revenue Special Fund into the Harbor Special Fund once the Capital Improvement Bonds and 1990 Certificate Harbor Revenue Bonds are no longer Outstanding. Accordingly, all references to the 1997 Certificate Harbor Revenue Special Fund shall be deemed to refer to the Harbor Special Fund.

Definitions of Certain Terms (Certificate – Section 1.01)

The following are definitions in summary form of certain terms contained in the Certificate and used in this Official Statement.

"*Additional Bonds*" means, collectively, any Additional Bonds issued under and pursuant to the provisions of the Certificate and, unless the context otherwise requires, any Refunding Bonds issued under and pursuant to the provisions of the Certificate.

"*Aggregate Net Revenues*" means (A) for any period prior to the date of calculation: (i) Revenues accrued during such period (after allowance for doubtful accounts deemed appropriate by the Department), minus (ii) Operation and Maintenance Expenses accrued during such period; and (B) for any period subsequent to the date of calculation, with respect to Section 6.03 of the Certificate: (i) estimated Revenues for such period, minus (ii) estimated Operation and Maintenance Expenses for such period.

"*Aggregate Certificate Bond Service*" means, as of any date of calculation and with respect to any period, the sum of the amounts of Bond Service for all Series of Bonds, Capital Improvement Bonds and 1990 Certificate Harbor Revenue Bonds for such period.

"*Balloon Bonds*" means any Series of Bonds described as such in which at least 25 % of the principal for such series matures in any one year, including without limitation bond anticipation notes.

"*Bond Service*" means, as of any date of calculation and with respect to any period for any Series of Bonds, Capital Improvement Bonds and 1990 Certificate Harbor Revenue Bonds, an amount equal to (i) the sum of (1) the interest accruing during such period on the Bonds, Capital Improvement Bonds and 1990 Certificate Harbor Revenue Bonds of such Series, except to the extent that such interest is to be paid from amounts credited to the 1997 Certificate Harbor Interest Account, and (2) that portion of the next succeeding Principal Installment for the Bonds, Capital Improvement Bonds and 1990 Certificate Harbor Revenue Bonds of such Series that would have accrued during such period if each such Principal Installment were deemed to accrue daily (based on a year of 12 months each of 30 days' duration) in equal amount from the next preceding Principal Installment due date (or, in the event there shall have been no such preceding Principal Installment due date for such Series, then from a date one year preceding the due date of such Principal Installment or from the date of delivery of the Bonds of such Series, whichever is later), and (ii) net of the amount of Federal Direct Payments deposited or irrevocably committed to be deposited, as the case may be, by the Director during such time period into (1) the account or accounts established in the Harbor Special Fund for the payment of interest on any Capital Improvement Bonds as the same becomes due, (2) the account or accounts established in the Harbor Revenue Special Fund for the payment of interest on any 1990 Certificate Harbor Revenue Bonds as the same becomes due, or (3) the 1997 Harbor Interest Account for the purpose of paying interest on any Bonds as the same becomes due,. Such interest and Principal Installments shall be calculated on the assumption that no Bonds of such Series Outstanding at the date of calculation will cease to be Outstanding except by reason of the payment of each Principal Installment for the Bonds of such Series on the due date thereof.

(A) The assumed interest rate on Variable Rate Bonds for purposes of this definition shall be determined as follows: (a) with respect to a Series of Variable Rate Bonds against which an Interest Rate Swap Agreement has been executed pursuant to which the Department agrees to pay a fixed rate, the assumed interest rate will equal the fixed rate to be paid by the Department under the Interest Rate Swap Agreement and (b) with respect to any other Series of Variable Rate Bonds then outstanding or proposed to be issued the interest rate shall be assumed to be a rate equal to the long-term revenue bond index rate as published by the Bond Buyer, or other similar publication within 10 days of calculation;

(B) In determining the principal amount due in each fiscal year for any Capital Appreciation Bonds, payment shall (unless a different subsection of this definition applies for purposes of determining principal maturities or amortization) be assumed to be made in accordance with any amortization schedule established for such debt, including any mandatory sinking account payments or any scheduled redemption or payment of Bonds on the basis of Accreted Value, and for such purpose, the redemption payment or payment of Accreted Value shall be deemed a principal payment and interest that is compounded and paid as part of Accreted Value shall be deemed due on the scheduled redemption or payment date of such Capital Appreciation Bond;

(C) If the Bonds are Paired Obligations, the interest rate on such Bonds shall be the resulting linked rate or effective fixed interest rate to be paid by the Department with respect to such Paired Obligations;

(D) If any Interest Rate Swap Agreement is in effect pursuant to which the Department pays a variable rate, and such swap is payable on a parity with the Bonds to which it relates (provided, however, that any termination or other cancellation payment due under the Interest Rate Swap Agreement shall be subordinate to the Bonds) no amounts payable under such interest rate swap agreement shall be included in the calculation of Bond Service unless the sum of (i) interest payable on such Bonds, plus (ii) amounts payable by the Department under such interest rate swap agreement, less (iii) amounts receivable by the Department under such interest rate swap agreement are greater than the interest payable on the Bonds to which it relates, then, in such instance, the amount of such payments to be made that exceed the interest to be paid on the Bonds shall be included in each calculation. For such purposes the variable amount under any such interest rate swap agreement shall be assumed to be equal to a rate equal to the assumed Revenue Bond Index-based rate, as published by *The Bond Buyer*, or other similar publication, within 10 days of calculation;

(E) If any Bonds feature an option, on the part of the Bondowners or an obligation under the terms of such Bonds, to tender all or a portion of such Bonds to the Department, or other fiduciary or agent and require that such Bonds or portion thereof be purchased if properly presented, and if it shall constitute an event of default if such Bonds shall not be purchased upon said presentation, then for purposes of determining the amounts of principal and interest due in any fiscal year on such Bonds, the options or obligations of the Owners of such Bonds to tender the same for purchase or payment prior to their stated maturity or maturities shall be treated as a principal maturity occurring on the first date on which Owners of such Bonds may or are required to tender such Bonds except that any such option or obligation to tender Bonds shall be ignored and not treated as a principal maturity, if (1) such Bonds are rated in one of the three highest long-term Rating Categories by two Rating agencies (without taking into account any plus or minus designation or numerical modification used by the Rating Agency to indicate relative standing within a major rating category) are rated in the highest short-term note or commercial paper Rating Categories by two Rating agencies (without taking into account any plus or minus designation or numerical modification used by the Rating Agency to indicate relative standing within a major rating category), and (2) funds for the purchase price of such Bonds are to be provided by a Support Facility and the obligation of the Department with respect to the provider of such Support Facility, other than its obligations on such Bonds (including any increased interest rate thereon), shall be subordinated to the obligations of the Department on the Bonds;

(F) For purposes of calculating annual debt service on any Balloon Bonds, it shall be assumed that the principal of those Balloon Bonds, together with interest thereon at a rate equal to the assumed Revenue Bond Index-based rate, as published in *The Bond Buyer* or other similar publication, will be amortized in equal annual installments over a term of 30 years.

When used with reference to Capital Improvement Bonds or 1990 Certificate Harbor Revenue Bonds, "Bond Service" shall have the meaning set forth in the Capital Improvement Certificate and the 1990 Certificate, respectively.

"*Capital Appreciation Bonds*" means Bonds of any Series designated as Capital Appreciation Bonds in the Supplemental Certificate providing for the issuance of such Series and on which interest is compounded and paid at maturity or on prior redemption.

"*Capital Improvement Bonds*" means all Harbor Capital Improvement Revenue Bonds issued and Outstanding under the Capital Improvement Certificate.

"*Capital Improvement Certificate*" means the Certificate of the Director of Transportation Providing for the Issuance of State of Hawaii Harbor Capital Improvement Revenue Bonds dated September 1, 1967, as amended and supplemented.

"*Capital Improvement Special Fund*" means the second separate harbor special fund created in the treasury of the State by that paragraph which begins with the word "Fifth" of Section 266-19, HRS, prior to amendment by Act 309, SLH, Regular Session 1989 and continued pursuant to paragraph (a) of Section 266-19, HRS, as amended.

"*Code*" means the Internal Revenue Code of 1986, as from time to time amended, and any successor statute thereto, and any Treasury regulations or proposed regulations thereunder. Any reference herein to any Section of the Code shall be deemed to refer to any amended or successor provision enacted or promulgated after the date of the Certificate, but only with respect to each particular Series of Bonds to the extent effective as to such Series.

"*Commercial Paper*" means short-term taxable or tax-exempt promissory notes sold into the commercial paper market and maturing within 270 days of the date of issuance thereof. For the avoidance of doubt, Commercial Paper shall be treated as Balloon Bonds for purposes of calculating Bond Service.

"*Credit Agreement*" means a credit agreement, revolving credit agreement or other similar debt agreement pursuant to which the Department borrows funds. For the avoidance of doubt, a Credit Agreement may be treated as Balloon Bonds or Variable Rate Bonds, if and as applicable, for purposes of calculating Bond Service.

"*Dealer*" means, with respect to an issue of Commercial Paper, the Dealer appointed by the Department and serving as such under a Dealer Agreement or similar agreement, including any successors or assigns.

"*Dealer Agreement*" means, with respect to an issue of Commercial Paper, a Commercial Paper Dealer Agreement or similar agreement.

"*Debt Service Reserve Subaccount*" means any one or more subaccounts of the Department established pursuant to a Supplemental Certificate and held under the 1997 Certificate Harbor Debt Service Reserve Account.

"*Event of Default*" means any occurrence or event specified under "*Events of Default; Remedies*" below.

"*Federal Securities*" means any of the following:

(i) any direct and general obligations of, or any obligations fully and unconditionally guaranteed as to the full and timely payment of principal and interest by, the United States of America;

(ii) any obligations issued or guaranteed by any of the following federal agencies, provided that such obligations are backed by the full faith and credit of the United States of America: United States Export-Import Bank (direct obligations or fully guaranteed certificates of beneficial ownership); Farmers Home Administration (certificates of beneficial ownership); Federal Financing Bank; Federal Housing Administration (debentures); General Services Administration (participation certificates); Government National Mortgage Association ("GNMA") (GNMA-guaranteed mortgage-backed Bonds; GNMA-guaranteed pass-through obligations); United States Maritime Administration (guaranteed Title XI financing); New Communities Debentures (United States Government guaranteed debentures); United States Public Housing Notes and Bonds (United States Government guaranteed public housing notes and Bonds); and United States Department of Housing and Urban Development (project notes; local authority Bonds);

(iii) any obligations of any state or political subdivision of a state (collectively, "Municipal Bonds") which Municipal Bonds are either (A) rated by two or more Rating Agencies at a rating equivalent to or higher than the rating assigned by such Rating Agencies to the United States of America (whether such rating is based upon the credit of the issuer, an insurance policy, a letter of credit or otherwise) or (B) fully secured as to principal and interest by an irrevocable pledge of moneys or direct and general obligations of, or obligations guaranteed by, the United States of America, which moneys or obligations are segregated in trust and pledged for the benefit of the holder of the Municipal Bonds, and which Municipal Bonds are rated by two or more Rating Agencies at a rating equivalent to or higher than the rating assigned by such Rating Agencies to the United States of America and provided, however, that such Municipal Bonds are accompanied by (a) an opinion of Bond Counsel to the effect that such Municipal Bonds are not subject to redemption prior to the date the proceeds of such Municipal Bonds will be required for the purposes of the investment being made therein and (b) a report of an Independent Public Accountant verifying that the moneys and obligations so segregated are sufficient to pay the principal of, premium, if any, and interest on the Municipal Bonds; and

(iv) securities commonly referred to as CATs, TIGRs, STRIPs, other certificates of direct ownership of the principal of, or interest on, direct and general obligations of the United States of America or certificates of direct ownership of the interest on obligations of the Resolution Funding Corporation, which obligations are held by a commercial bank which is a member of the Federal Reserve System in trust on behalf of the holders of the derivative product:

provided, however, that the term "Federal Securities" shall exclude unit investment trusts or mutual funds which otherwise meet the criteria set forth above in clauses (i) through (iv) unless the trust or fund is in the highest rating category of the Rating Agency.

"*Fiscal Year*" means the fiscal year for the State as established from time to time by the State, being on the date of effectiveness of the Certificate the period from July 1 in any year to and including the following June 30.

"*Harbor Consultant*" means an independent person or firm or corporation who shall have a widely known and favorable reputation for special skill, knowledge and experience in methods of the development, operation and management of harbors of the approximate size and character as the properties constituting the Undertaking. The Independent Public Accountant or Consulting Engineer may be appointed as a Harbor Consultant, but the Department is not limited in its selection to such persons or entities.

"*Interest Payment Date*" means, with respect to any particular Series of Bonds, any date on which interest is payable on such Series of Bonds as such date shall be established in the Supplemental Certificate providing for the issuance of such Series of Bonds.

"*Interest Rate Swap Agreement*" means an interest rate swap agreement relating to a Series of Bonds or portion thereof, (a) the term of which is not greater than the term of the Bonds which such interest rate swap agreement relates, (b) in which the counterparty with which the Department may contract is limited to (i) entities the debt securities of which are rated in one of the three highest long-term debt rating categories by two Rating Agencies (without taking into account any plus or minus designation or numerical modification used by the Rating Agency to indicate relative standing within a major rating category), or (ii) entities the obligations of which under the interest rate swap agreement are either guaranteed or insured by an entity the debt securities or insurance policies of which are so rated, or (iii) entities the debt securities of which are rated in the fourth highest long-term debt rating categories by two Rating Agencies (without taking into account any plus or minus designation or numerical modification used by the Rating Agency to indicate relative standing within a major rating category) or whose obligations are guaranteed or insured by an entity so rated and the obligations of which under the interest rate swap agreement are continuously and fully secured by Investment Securities (other than those described in clauses (iv) through (xviii) of the definition thereof), which shall have a market value determined, by the party designated in such agreement, at least monthly (exclusive of accrued interest) at least equal to the termination value, if any, that would be payable by such counterparty under the interest rate swap agreement and which shall be deposited with a custodian acceptable to the Department, and (c) the payment of regularly scheduled swap payments are on a parity with the Bonds, however any termination or cancellation payments are subordinated to the Bonds.

"Investment Securities" means any of the following securities, but only if at the time of investment such security is permitted by law as an investment for the fund or account being considered:

(i) Federal Securities;

(ii) obligations issued or guaranteed by any of the following United States Government agencies: Federal Home Loan Bank System (senior debt obligations); Federal Home Loan Mortgage Corporation (participation certificates and senior debt obligations); Federal National Mortgage Association (mortgage-backed securities and senior debt obligations); and Student Loan Marketing Association (senior debt obligations);

(iii) direct and general obligations of any state of the United States of America, to the payment of the principal of and interest on which the full faith and credit of such state is pledged, provided that at the time of their purchase under the Certificate such obligations are rated in the three highest major rating categories by a Rating Agency (without taking into account any plus or minus designation or numerical modification used by the Rating Agency to indicate relative standing within a major rating category);

(iv) repurchase agreements with banks which are members of the Federal Deposit Insurance Corporation and rated in the three highest major rating categories by a Rating Agency (without taking into account any plus or minus designation or numerical modification used by the Rating Agency to indicate relative standing within a major rating category) or government bond dealers recognized as primary dealers by the Federal Reserve Bank of New York, secured by securities which are obligations described in item (i) or (ii) of this definition of Investment Securities, provided that each such repurchase agreement (a) is in commercially reasonable form, as determined in the sole judgment of the Department, and is for a period not to exceed thirty (30) days, and (b) results in transfer to the Department of legal title to, or the grant to the Paying Agent of a prior perfected security interest in, identified securities referred to in item (i) above which are free and clear of any claims by third parties and are segregated in a custodial or trust account held by a third party (other than the repurchase) as the agent solely of, or in trust solely for the benefit of, the Department; provided that such securities acquired pursuant to such repurchase agreements shall be valued weekly at the lower of the then current market value of such securities or the repurchase price thereof set forth in the applicable repurchase agreement, and if the value of such securities drops below 103% of the value of the cash transferred by the Department, then additional cash and/or acceptable securities must be transferred to the Department from the applicable bank or government bond dealer;

(v) time deposits (which may be represented by certificates of deposit) in any bank or trust company, provided that such time deposits (a) do not exceed at any one time in the aggregate 10% of the total net worth of such bank or trust company, (b) are continuously and fully secured by obligations described in item (i) of this definition of Investment Securities, which shall have a market value (not including accrued interest) at all times at least equal to the principal amount of such certificates and shall be lodged with the Department, as custodian, by the bank or trust company issuing such certificates, and the bank or trust company issuing each such certificate required to be so secured shall furnish the Department with either the securities pledged to the security thereof or a joint custody receipt evidencing the securities pledged thereunder, or (c) are 100% insured by the Federal Deposit Insurance Corporation;

(vi) Bankers' acceptances with a maximum term of one year drawn on and accepted by commercial banks having a total net worth of at least $50,000,000 (or, in the case of a commercial bank not organized under the laws of the United States of America or any state thereof (in which event the bankers' acceptances shall be dollar-denominated), a total net worth of at least $1,000,000,000) and having an unsecured, uninsured and unguaranteed obligation rating in the three highest short- or long-term major rating categories by two Rating Agencies (without taking into account any plus or minus designation or numerical modification used by the Rating Agency to indicate relative standing within a major rating category);

(vii) Commercial or finance company paper of a maturity not in excess of one (1) year which is rated in the highest short-term rating category by the Rating Agency (without taking into account any plus or minus designation or numerical modification used by the Rating Agency to indicate relative standing within a major rating category);

(viii) Corporate bonds rated in one of the three highest rating categories by a Rating Agency (without taking into account any plus or minus designation or numerical modification used by the Rating Agency to indicate relative standing within a major rating category);

(ix) investment agreements rated no lower than the third highest rating category given by a Rating Agency and if not so rated then investment agreements with companies or banks whose senior debt obligations are rated no lower than the third highest rating category given by a Rating Agency (without taking into account any plus or minus designation or numerical modification used by the Rating Agency to indicate relative standing with a major rating category) at the time of the execution and delivery of such agreement;

(x) short term obligations by or on behalf of any state of the United States of America or political subdivision thereof provided at the time of their purchase under the Certificate such obligations are rated in the highest short-term category by the Rating Agency (without taking into account any plus or minus designation or numerical modification used by the Rating Agency to indicate relative standing within a major rating category);

(xi) any cash sweep or similar account arrangement of the Registrar the investments of which are limited to investments described in items (i) or (ii) of this definition of Investment Securities and any money market fund rated in the highest category by the Rating Agency the entire investments of which are limited to investments described in (i) or (ii) of this definition of Investment Securities; and

(xii) any other investments authorized by the Department if, after written notification to the Rating Agency written notification is received from the Rating Agency confirming that the use of such investments will not result in a downgrading of the then current rating of the Bonds Outstanding (without taking into account for such purposes any minus designation or numerical modification used by the Rating Agency to indicate relative standing within a major rating category).

"*Net Revenues*" means (A) for any period prior to the date of calculation, and so long as there are 1990 Certificate Harbor Revenue Bonds Outstanding or Capital Improvement Bonds Outstanding:

(i) Revenues accrued during such period (after allowance for doubtful accounts deemed appropriate by the Department), minus

(ii) deposits made from Revenues during such period to (so long as there are Capital Improvement Bonds Outstanding) the Capital Improvement Special Fund to pay debt service on the Capital Improvement Bonds (including any such deposits made during such period to restore the Capital Improvement Debt Service Reserve Account to the amount required to be credited thereto), minus

(iii) Operation and Maintenance Expenses accrued during such period, minus

(iv) deposits made during such period to the Harbor Revenue Special Fund to pay debt service on the 1990 Certificate Harbor Revenue Bonds (including any such deposits made during such period to restore the Harbor Debt Service Reserve Account to the amount required to be credited thereto);

(B) for any period prior to the date of calculation, after there are no Capital Improvement Bonds Outstanding and no 1990 Certificate Harbor Revenue Bonds Outstanding, (A)(i) minus (A)(iii);

(C) for any period subsequent to the date of calculation, and so long as there are Capital Improvement Bonds Outstanding or 1990 Certificate Harbor Revenue Bonds Outstanding:

(i) estimated Revenues for such period, minus

(ii) deposits due from Revenues for such period to (so long as there are Capital Improvement Bonds Outstanding) the Capital Improvement Special Fund to pay debt service on the Capital Improvement Bonds (including any such deposits made during such period to restore the Capital Improvement Debt Service Reserve Account to the amount required to be credited thereto), minus

(iii) estimated Operation and Maintenance Expenses for such period, minus

(iv) deposits due for such period to the Harbor Revenue Special Fund to pay debt service on the 1990 Certificate Harbor Revenue Bonds (including any such deposits estimated to be made to restore the Harbor Debt Service Reserve Account to the amount required to be credited thereto);

(D) for any period subsequent to the date of calculation, after there are no Capital Improvement Bonds Outstanding and no 1990 Certificate Harbor Revenue Bonds Outstanding, (C)(i) minus (C)(iii).

"*1990 Certificate*" means the Certificate of the Director of Transportation Providing for the Issuance of State of Hawaii Harbor Revenue Bonds dated as of November 15, 1990, as amended and supplemented.

"*1990 Certificate Harbor Revenue Bonds*" means all State of Hawaii Harbor Revenue Bonds issued and Outstanding under the 1990 Certificate.

"*1997 Certificate Harbor Debt Service Reserve Account*" means the separate special account of the Department created pursuant to the Certificate in the 1997 Certificate Harbor Revenue Special Fund and designated in that Section as the "1997 Certificate Harbor Debt Service Reserve Account."

"*1997 Certificate Harbor Interest Account*" means the separate special account of the Department created pursuant to the Certificate in the 1997 Certificate Harbor Revenue Special Fund and designated in that Section as the "1997 Certificate Harbor Interest Account."

"*1997 Certificate Harbor Principal Account*" means the separate special account of the Department created pursuant to the Certificate in the 1997 Certificate Harbor Revenue Special Fund and designated in that Section as the "1997 Certificate Harbor Principal Account."

"*1997 Certificate Harbor Reserve and Contingency Account*" means the separate special account of the Department created pursuant to the Certificate in the 1997 Certificate Harbor Revenue Special Fund and designated in that Section as the "1997 Certificate Harbor Reserve and Contingency Account."

"*1997 Certificate Harbor Revenue Special Fund*" means the special fund of that name created in the Certificate.

"*Operation and Maintenance Expenses*" means the expenses of operation and maintenance of the properties constituting the Undertaking and the expenses of operation of the Department, including general administrative overhead, in connection with those properties, but excluding any (i) arbitrage earnings which are required to be paid to the United States Government pursuant to Section 148 of the Code, (ii) depreciation and amortization expense and any other non-cash charges, (iii) surcharges imposed by the State for central services expenses, (iv) Qualified Litigation Costs (defined under "*Undertaking*" below) and (v) any amounts statutorily required to be remitted to The Office of Hawaiian Affairs in connection with the use of Ceded Lands by third-party users.

"*Outstanding*," when used with respect to any Bond, shall have the construction given to such word under "*Discharge of Liens and Pledges; Bonds No Longer Deemed Outstanding Under the Certificate*" below, i.e., a Bond shall not be Outstanding hereunder if such Bond is at the time not deemed to be Outstanding by reason of the operation and effect of said Section.

For purposes of the Certificate, in the event any Bonds of a Series are issued and sold at a price such that a portion or all of the interest thereon is intended to be earned by accrual of original issue discount or the compounding of interest, the amount of such Bonds deemed to be Outstanding for the purpose of calculating the principal amount of any such Bonds and the principal amount of Bonds Outstanding in connection with the exercise of any voting right or privilege, the giving of any consent or direction or the taking of any other action that the holders of the Bonds are entitled to take pursuant to Articles X and XI of the Certificate or otherwise, shall be the Accreted Value thereof. Prior to the issuance and delivery of any Series of Bonds of the character described in this paragraph, a certificate of the Department shall be executed setting forth the Accreted Value thereof as of each Interest Payment Date for such Series of Bonds to the stated maturity date thereof, which certificate shall be conclusive in the absence of manifest error. Unless otherwise provided in the Supplemental Certificate providing for the issuance of a Series of Bonds, this paragraph shall apply only to issues with an original issue discount in excess of 5% from the par amount thereof.

When used with reference to the 1990 Certificate Harbor Revenue Bonds and the Capital Improvement Bonds, "Outstanding" shall have the meaning set forth in the 1990 Certificate and the Capital Improvement Certificate, respectively.

"*Paired Obligations*" means any Series (or portion thereof) of Bonds designated as Paired Obligations in the Supplemental Certificate or other document authorizing the issuance or incurrence thereof, which are simultaneously issued or incurred (i) the principal of which is of equal amount maturing and to be redeemed (or canceled after acquisition thereof) on the same dates and in the same amounts, and (ii) the interest rates which, taken together, result in an irrevocably fixed interest rate obligation of the Certificate for the terms of such Bonds.

"*Rate Covenant*" means the covenant by the State in the Certificate relating to rates and charges, which is summarized in the Official Statement under the heading "SECURITY FOR THE BONDS – Rates and Charges."

"*Rating Agency*" means Fitch Ratings, Inc., Moody's Investors Service or S&P Global Ratings, and in each case their successors and assigns; provided, however, that any reference to a Rating Agency in the Certificate (other than in this Section under the definitions of "Federal Securities" and "Investment Securities") shall only be effective while such Rating Agency is providing a rating on Outstanding Bonds.

"*Reserve Requirement*" means an amount, as of any date of determination, equal to: (i) with respect to the 2013 Bonds for credit to the Series 2013 Debt Service Reserve Subaccount, an amount, as of any date of determination, equal to fifty percent (50%) of the maximum Bond Service for the 2013 Bonds for any Fiscal Year, beginning with the Fiscal Year in which the date of determination occurs and ending with the Fiscal Year after which no Series 2013 Bonds are Outstanding; (ii) with respect to the Series 2016 Bonds, $0; (iii) with respect to the 2020 Bonds for credit to the Series 2020 Debt Service Reserve Subaccount, an amount, as of any date of determination, equal to fifty percent (50%) of the maximum Bond Service for the 2020 Bonds for any Fiscal Year, beginning with the Fiscal Year in which the date of determination occurs and ending with the Fiscal Year after which no Series 2020 Bonds are Outstanding; and (iv) with respect to any Additional Bonds, the amount provided for in the Supplemental Certificate authorizing the same.

"*Revenues*" means and includes (A) all income, revenues and moneys derived by the State from the ownership or operation of the Undertaking or the supplying and furnishing of the services, facilities and commodities thereof, and without limiting the generality of the foregoing, shall include all income, revenues and moneys derived from rates, rentals, fees, tolls and charges assessable and chargeable by the Department in respect to dockage, wharfage, demurrage and rates appertaining to the Undertaking or derived from the rental of all or part of the Undertaking or from the sale or rental of any commodities or goods in connection with the Undertaking; earnings on the investment of moneys held under the Capital Improvement Certificate, the 1990 Certificate or the Certificate and the proceeds of the sale of any such investments; earnings on the investment of the proceeds of Bonds; and to the extent provided in Article VI of the Certificate, income derived by the Department or otherwise derived by the State from a Net Rent Lease (defined under "*Certain Covenants by the State – Net Rent Leases*" below); (B) income, revenues and moneys paid to the State or the Department with respect to properties that constitute part of the Undertaking on the effective date of the Certificate but are sold, leased or otherwise disposed of or transferred pursuant to the provisions of the Certificate so as to no longer constitute part of the Undertaking; and (C) any other moneys or funds deposited by the State or the Department into the Harbor Special Fund, the Harbor Revenue Special Fund or the 1997 Certificate Harbor Revenue Special Fund; provided, however, that the term "Revenues" shall not include:

(i) moneys received as proceeds from the sale of Bonds or Special Obligation Bonds;

(ii) condemnation proceeds or insurance proceeds except insurance proceeds received from rental or business interruption insurance;

(iii) grants-in-aid or similar payments received from public agencies, provided that (1) the application of such moneys is restricted to a specific purpose or (2) such grants or payments constitute a reimbursement to the State for expenditures previously made from the Harbor Special Fund, the Capital Improvement Special Fund or the 1997 Certificate Harbor Revenue Special Fund;

(iv) moneys or securities received by the State or the Department as gifts or grants, the use of which is restricted by the donor or grantor;

(v) investment income derived from any moneys or securities which may be placed in escrow or trust to defease Bonds of the State, including Capital Improvement Bonds, 1990 Certificate Harbor Revenue Bonds and the Bonds;

(vi) any arbitrage earnings which are required to be paid to the United States Government pursuant to Section 148 of the Code;

(vii) the proceeds of any Support Facility;

(viii) unrealized gains and losses on investments; and

(ix) any proceeds paid to Harbor System by third-party users of Ceded Lands which the Harbor System is statutorily obligated to remit to The Office of Hawaiian Affairs.

"*Series 1997 Bonds*" means the State of Hawaii Harbor System Revenue Bonds, Series of 1997, being the initial Series of Bonds issued pursuant to the Certificate.

"*Sinking Fund Installment*" means, with respect to each Series of Bonds, the amount designated as such in the Supplemental Certificate authorizing such Series of Bonds. The portion of any such Sinking Fund Installment remaining after the deduction of any such amounts credited pursuant to the Certificate toward the same (or the original amount of any such Sinking Fund Installment if no such amounts shall have been credited toward the same) shall constitute the unsatisfied balance of such Sinking Fund Installment for the purpose of calculation of Sinking Fund Installments due on a future date.

"*Support Agreement*" means the agreement or agreements, if any, entered into by the Department which provide for a Support Facility, and any and all modifications, alterations, amendments and supplements thereto.

"*Support Facility*" means any instrument entered into or obtained in connection with a Series of Bonds or Commercial Paper such as a letter of credit, a committed line of credit, insurance policy, surety bond or standby bond purchase agreement, or any combination of the foregoing, and issued by a bank or banks, other financial institution or institutions, or any combination of the foregoing, which Support Facility provides for the payment of (i) the purchase price equal to the principal of and accrued interest on Bonds or Commercial Paper delivered to the Remarketing Agent, Dealer or any depository, tender agent or other party pursuant to a Remarketing Agreement Dealer Agreement or Supplemental Certificate and discount, if any, incurred in remarketing such Bonds or

Commercial Paper and/or (ii) principal of and interest on all Bonds or Commercial Paper becoming due and payable during the term thereof.

"*Undertaking*" means and includes all harbors, harbor and waterfront improvements, ports, docks, wharves, quays, bulkheads and landings and other related facilities and properties (real, personal or mixed) now belonging to or controlled by the State and under the administration, jurisdiction, control and management of the Department, and all improvements, betterments or extensions thereto hereafter constructed or acquired, except in all cases such facilities and properties as are principally used for recreation or the landing of fish (except properties located at Kewalo Basin, Ewa of Ala Moana Park, Honolulu, and its annex), and without limiting the generality of the foregoing, the term "Undertaking" shall include each and every, all and singular, the properties and facilities constructed or acquired from the proceeds of the obligations issued under the Resolution of the Board of Harbor Commissioners adopted September 18, 1950 or constructed or acquired from the proceeds of Capital Improvement Bonds, 1990 Certificate Harbor Revenue Bonds or Bonds issued under the Certificate or constructed or acquired from the proceeds of any other Bonds, notes or other evidences of indebtedness payable, or the principal and interest of which is reimbursable, from the Harbor Special Fund or from a fund maintained therefrom, or constructed or acquired from moneys in the Harbor Special Fund or in any other fund maintained therefrom and any settlement (negotiated, court-ordered or otherwise), judgment or order and related costs, arising from any litigation or relating to any of the foregoing properties and facilities to which the State or the Department is a party related to such properties or facilities or to which any of such properties and facilities are bound (any such settlement, judgment or order and related costs are hereinafter referred to as "Qualified Litigation Costs"); provided, however, that the term "Undertaking" shall not include:

(1) any State ferry system established, financed and maintained pursuant to Chapter 268, HRS, or established, financed and maintained pursuant to any other law;

(2) properties sold, leased or otherwise disposed of or transferred pursuant to the provisions of the Certificate;

(3) properties subject to a Net Rent Lease except to the extent provided in Article VII of the Certificate; and

(4) properties in Kewalo Basin and Fort Armstrong to be transferred from the jurisdiction of the Department to the Hawaii Community Development Authority pursuant to Act 86, SLH, 1990.

"*Value of Investment Securities*" and words of like import means the amortized value thereof; provided, however, that all United States Treasury Obligations—State and Local Government Series shall be valued at par and those obligations which are redeemable or otherwise subject to payment (including purchase) at the option of the owner thereof shall be valued at the price at which such obligations are then redeemable, or otherwise subject to payment. The computations made under this definition shall include accrued interest on the Investment Securities paid as a part of the purchase price thereof and not collected. For the purposes of this definition, "amortized value," when used with respect to a security purchased at par, means the purchase price of such security and when used with respect to a security purchased at a premium above or discount below par means, as of any subsequent date of valuation, the value obtained by dividing the total premium or discount by the number of interest payment dates remaining to maturity on any such security after such purchase and by multiplying the amount so calculated by the number of interest payment dates having passed since the date of purchase and (i) in the case of a security purchased at a premium, by deducting the product thus obtained from the purchase price, and (ii) in the case of a security purchased at a discount, by adding the product thus obtained to the purchase price.

"*Variable Rate Bonds*" means any Bonds issued bearing interest at a rate per annum subject to adjustment from time to time pursuant to the terms thereof, based upon an index or otherwise calculated in a manner which precludes the actual rate for the entire term of such debt from being ascertainable in advance. For the purposes of this definition, Bonds shall not be considered to be Variable Rate Bonds upon the establishment of or conversion of the rate of interest thereon to a fixed interest rate.

Additional Bonds and Refunding Bonds (Certificate – Sections 4.02, 4.03 and 4.04)

Conditions Precedent to Issuance of Additional Bonds and Refunding Bonds. The Department at any time and from time to time may authorize the issuance of one or more Series of additional Bonds ("Additional Bonds") or refunding Bonds ("Refunding Bonds") payable from the 1997 Certificate Harbor Revenue Special Fund on a parity with the Series 1997 Bonds and any Additional Bonds or Refunding Bonds then Outstanding and equally and ratably secured therewith, upon compliance with the following conditions:

1. The issuance of the Additional Bonds or Refunding Bonds shall have been authorized by law and are issued under and pursuant to a Supplemental Certificate.

2. In the case of the issuance of Additional Bonds, upon compliance with the additional conditions summarized below.

3. In the case of the issuance of Refunding Bonds, upon compliance with the additional conditions summarized below.

Nothing in the Certificate shall prohibit or prevent, or be deemed or construed to prohibit or prevent, the Department from issuing Variable Rate Bonds, Balloon Bonds, Capital Appreciation Bonds, Paired Obligations, Commercial Paper or Credit Agreements or entering into an Interest Rate Swap Agreement. The Supplemental Certificate providing for the issuance of Variable Rate Bonds, Balloon Bonds (as defined in the Certificate), Capital Appreciation Bonds or Paired Obligations, Commercial Paper or Credit Agreements may provide for, without limitation, the following: Support Facilities or alternative Support Facilities and Support Agreements in connection therewith; Remarketing Agreements or Dealer Agreements and the appointment of Remarketing Agent or Dealers s; the appointment of tender agents to accept mandatory or optional tenders of Variable Rate Bonds; the payment, redetermination and accrual over specified periods of interest or Accreted Value; the establishment, use, composition, adjustment and change-of-interest indices or modes or the establishment and use of alternative interest indices or modes or the establishment of a fixed interest rate or rates; the establishment of special funds and accounts in connection with the issuance of Variable Rate Bonds, Capital Appreciation Bonds or Paired Obligations; special redemption or purchase provisions for such Variable Rate Bonds, Commercial Paper of Credit Agreements and notice provisions in connection with the purchase, redemption, delivery or tender of such Variable Rate Bonds, Commercial Paper or Credit Agreements; and any other terms and provisions not in conflict with the Certificate.

Additional Conditions for the Issuance of Additional Bonds. Each of the following conditions, in addition to those set forth above, shall be met upon the issuance of Additional Bonds:

a. Such Bonds shall be issued only for the purpose of the payment or reimbursement of the cost of the acquisition or construction of properties to constitute part of the Undertaking or the making of additions to, expansions of, improvements of, renewals of, replacements of, or reconstructions of, the Undertaking or of properties which shall constitute part of the Undertaking (including, without limitation, any Qualified Litigation Costs, as defined in the Certificate);

b. The Supplemental Certificate providing for the issuance of such Bonds shall provide that any accrued interest received upon the sale of said Bonds or any interest capitalized from the proceeds of said Bonds shall be paid into the 1997 Certificate Harbor Revenue Special Fund for credit to the 1997 Certificate Harbor Interest Account;

c. At the time of the issuance of such Additional Bonds, no default exists in the payment of the principal of and premium, if any, and interest on any Bond, any 1990 Certificate Harbor Revenue Bond or any Capital Improvement Bond; no deficiencies exist in the Harbor Special Fund, the Capital Improvement Special Fund, the Harbor Revenue Special Fund or the 1997 Certificate Harbor Revenue Special Fund; the Rate Covenant is satisfied currently without regard to provisions concerning curative action; and there does not exist an Event of Default or a condition which upon the passage of time would constitute an Event of Default;

d. The Aggregate Net Revenues as derived from the most recent audited financial statements or for any consecutive twelve calendar month period during the eighteen calendar month period preceding the date of adoption by the Department of the Supplemental Certificate authorizing the issuance of such Additional Bonds (the "Designated Period"), are at least equal to (i) one and twenty-five hundredths (1.25) times the Aggregate Certificate Bond Service for any future Fiscal Year on all Bonds, 1990 Certificate Harbor Revenue Bonds and Capital Improvement Revenue Bonds to be Outstanding after the issuance of such Additional Bonds, or (ii) one (1.00) times the Aggregate Certificate Bond Service for any future Fiscal Year on all Bonds, 1990 Certificate Harbor Revenue Bonds and Capital Improvement Revenue Bonds to be Outstanding after the issuance of such Additional Bonds and the sum of (1) the Aggregate Net Revenues for the Designated Period, and as adjusted as thereinafter required, and (2) the Anticipated Net Revenue Increase (hereinafter defined), if any, is at least equal to one and twenty-five hundredths (1.25) times the Aggregate Certificate Bond Service for any future Fiscal Year on all Bonds, 1990 Certificate Harbor Revenue Bonds and Capital Improvement Revenue Bonds to be Outstanding after the issuance of such Additional Bonds; and

e. Upon the delivery of any Series of Additional Bonds there shall be on deposit in the 1997 Certificate Harbor Revenue Special Fund for credit to the Debt Service Reserve subaccount for such Additional Bonds, if any, within the 1997 Certificate Harbor Debt Service Reserve Account an amount equal to the applicable Reserve Requirement.

For the purposes of making the determinations required by clause (ii) of paragraph d. above:

A. In the event that at any time during the Designated Period the State acquired existing properties which at the time of such acquisition were used for harbor purposes and if the State shall have title to and possession of such properties on the day of such delivery and such properties shall constitute part of the Undertaking on such day, or in the event that any existing properties are to be acquired by the State from the proceeds of the Additional Bonds proposed to be issued, which properties at the time of such acquisition are used for harbor purposes, then in either event (or in both events) the Aggregate Net Revenues for the Designated Period shall be increased or decreased by the Harbor Consultant to reflect the revenues (if any) which would have been derived by the Department from, and the costs of operation and maintenance which would have been incurred by the Department with respect to, such properties during the said period and otherwise adjusted if necessary, so as to reflect the result had such properties been operated by the Department as part of the Undertaking throughout the Designated Period;

B. In the event that at any time prior to the day of the delivery of the proposed Additional Bonds, or in the event that during the month in which such Additional Bonds are to be delivered (but prior to such delivery), the Department has imposed increases in its schedule of rentals, rates, fees, tolls and charges, which increases are or shall be in effect upon the delivery of such Additional Bonds, the Aggregate Net Revenues for the aforesaid period may be adjusted by the Harbor Consultant to reflect the results had such increased rates been in effect throughout such entire period; and

C. "Anticipated Net Revenue Increase" means such increase in Aggregate Net Revenues as estimated by the Harbor Consultant for such period the Harbor Consultant deems reasonable and taking into account such factors as such consultant deems pertinent, including, without limitation, (1) of construction of additional facilities to constitute part of the Undertaking (including in the word "construction" the making of additions and expansions to or renovations or reconstructions of existing facilities constituting part of the Undertaking, or the acquisition of properties not theretofore used for harbor purposes which are to constitute part of the Undertaking) and (2) the Rate Covenant.

Additional Conditions for the Issuance of Refunding Bonds. The following conditions, in addition to those set forth above, shall be met upon the issuance of Refunding Bonds: Refunding Bonds may be issued to refund prior to maturity all or part of the Capital Improvement Bonds, the 1990 Certificate Harbor Revenue Bonds or the Outstanding Bonds, including therein amounts to pay principal, redemption premium and interest to the redemption date on the Bonds, the 1990 Certificate Harbor Revenue Bonds or Capital Improvement Bonds to be refunded, which Bonds, 1990 Certificate Harbor Revenue Bonds or Capital Improvement Bonds to be refunded shall be specified in the Supplemental Certificate providing for the issuance of the Refunding Bonds, provided (1) at the time of the issuance of such Refunding Bonds, no default exists in the payment of the principal of and premium, if any, and interest on any Bonds, 1990 Certificate Harbor Revenue Bonds or Capital Improvement Bonds; no deficiencies exist in the Harbor Special Fund, the Capital Improvement Special Fund, the Harbor Revenue Special Fund or the 1997 Certificate Harbor Revenue Special Fund; the Rate Covenant is satisfied currently without regard to provisions concerning curative action, and there does not exist an Event of Default or a condition which upon the passage of time would constitute such an Event of Default; (2) the aggregate of the Bond Service on such Refunding Bonds shall be less than the aggregate of the Bond Service on the Capital Improvement Bonds, 1990 Certificate Harbor Revenue Bonds or Bonds to be refunded were such refunding not to occur; and (3) upon the delivery of such Refunding Bonds there shall be on credit to the Debt Service Reserve Subaccount for such Refunding bonds, if any, within the 1997 Certificate Harbor Debt Service Reserve Account, an amount equal to the Reserve Requirement for such Refunding Bonds.

Nothing in the Certificate shall be deemed to apply to or construed to prevent a refunding at one time of all Bonds then Outstanding.

Nothing in the Certificate shall prevent the Department from issuing Additional Bonds without compliance with the provisions for issuance of Refunding Bonds, for the purpose of refunding all or any portion of Outstanding Bonds, 1990 Certificate Harbor Revenue Bonds or Capital Improvement Bonds.

Allocation and Application of Revenues (Certificate – Section 5.01.)

There is created the 1997 Certificate Harbor Revenue Special Fund, which shall be comprised of the following accounts: 1997 Certificate Harbor Interest Account, 1997 Certificate Harbor Principal Account, 1997 Certificate Harbor Debt Service Reserve Account and Harbor Reserve and Contingency Account.

The Revenues deposited or to be deposited into the 1997 Certificate Harbor Revenue Special Fund shall be applied, used and disposed of as follows, and in the following order of priority:

FIRST: for Operation and Maintenance Expenses;

SECOND: for credit to the following accounts in the following order of priority in the amounts required pursuant to the provisions of the Certificate:

a. 1997 Certificate Harbor Interest Account;
b. 1997 Certificate Harbor Principal Account; and
c. 1997 Certificate Harbor Debt Service Reserve Account;

THIRD: for any other purpose within the jurisdiction, powers, duties and functions of the Department related to the Undertaking, including, without limitation, Operation and Maintenance Expenses, acquisitions (including real property and interests therein), constructions, additions, expansions, improvements, renewals, replacements, reconstruction, engineering, investigation, and planning for the Undertaking, and Qualified Litigation Costs, all or any of which in the judgment of the Department are necessary to the performance of its duties or functions;

FOURTH: to reimburse the general fund of the State for Reimbursable General Obligation Bonds;

FIFTH: for deposit into the 1997 Certificate Harbor Reserve and Contingency Account;

SIXTH: to provide funds for other special reserve funds and other special funds as may be created by law; and

SEVENTH: all or any portion of available moneys on deposit in the 1997 Certificate Harbor Revenue Special Fund, after satisfying the requirements of priority items FIRST through FIFTH above, determined by the Director of Transportation to be in excess of 150% of the requirements for the ensuing

12 months for the 1997 Certificate Harbor Revenue Special Fund may be transferred from the 1997 Certificate Harbor Revenue Special Fund as permitted by and in accordance with Sections 37-53 and 266-19, HRS, as amended, or any successor statute thereto.

At such time as there are no longer any Capital Improvement Bonds Outstanding, the Capital Improvement Special Fund and the Harbor Revenue Special Fund shall be consolidated into the Harbor Special Fund, all references therein to the Harbor Revenue Special Fund shall be deemed to refer to the Harbor Special Fund, and the Revenues shall continue to be deposited into the Harbor Special Fund.

At such time as there are no longer any 1990 Certificate Harbor Revenue Bonds Outstanding, the 1997 Certificate Harbor Revenue Special Fund shall be consolidated into the Harbor Special Fund, all references therein to the 1997 Certificate Harbor Revenue Special Fund shall be deemed to refer to the Harbor Special Fund, and the Revenues shall continue to be deposited in the Harbor Special Fund.

1997 Certificate Harbor Interest Account. (Certificate – Section 5.02.) The moneys credited to the 1997 Certificate Harbor Interest Account shall be disbursed solely for the purpose of paying interest on the Bonds as the same becomes due. In each month, commencing with the first Business Day of the month which follows the last month for which interest on a Series of Bonds, if any, is provided for from the proceeds of a Series of Bonds, (a) with respect to each Series of Bonds (other than Variable Rate Bonds which have Interest Payment Dates occurring at intervals of one month or less), commencing on such first Business Day and continuing on the first Business Day of each month thereafter so long as any of the Bonds of such Series are Outstanding, the Department shall credit to the 1997 Certificate Harbor Interest Account from amounts on deposit in the 1997 Certificate Harbor Revenue Special Fund an amount such that, if the same amount were so credited on the first Business Day of each succeeding month thereafter, the aggregate of such amounts credited on the first Business Day of the month preceding an Interest Payment Date will be equal to the installment of interest falling due on the Bonds on such Interest Payment Date or the amount required to reimburse the Support Provider for a draw on the Support Facility made to provide funds for the payment thereof; and (b) with respect to Variable Rate Bonds which have Interest Payment Dates occurring at intervals of one month or less, on the first Business Day of the month prior to each Interest Payment Date the Department shall credit to the 1997 Certificate Harbor Interest Account from amounts on deposit in the 1997 Certificate Harbor Revenue Special Fund the amount required, together with other funds available therefor credited to such account, to pay, or to reimburse the Support Provider for a draw on the Support Facility made to provide funds for the payment of, the interest payable on such Interest Payment Date or Dates on the Outstanding Variable Rate Bonds. In making the credits to the 1997 Certificate Harbor Interest Account required by this paragraph, consideration shall be given to and allowance made for accrued interest received upon the sale of a Series of Bonds, and for interest capitalized from the proceeds of a Series of Bonds (which accrued or capitalized interest shall in each case be deposited in the 1997 Certificate Harbor Revenue Special Fund for credit to the 1997 Certificate Harbor Interest Account), and for any other credits otherwise made to said account, Variable Rate Bonds shall be assumed to bear interest at the assumed interest rate as determined pursuant to subparagraph (A) of the definition of "Bond Service," and monthly credits made with respect to Variable Rate Bonds shall be adjusted to the extent possible to reflect the actual interest rate on Variable Rate Bonds in the preceding month so that, as of any Interest Payment Date, the amount available is sufficient to pay the interest then due; provided, however, that any payments to a Support Provider pursuant to a Support Agreement as Holder of a Bond which are in excess of the stated rate of interest on such Bond, whether denominated additional interest, penalty rate or otherwise, shall not constitute interest for purposes of this paragraph.

1997 Certificate Harbor Principal Account. (Certificate – Section 5.03.) In the event of the issuance of any Series of Bonds under the Certificate maturing at times customarily known as maturing serially, in order to provide for the payment of principal of such Bonds of such Series, or to reimburse the Support Provider for a draw on the Support Facility made to provide funds for the payment of such Bonds maturing serially, commencing with the month which is 12 months prior to the first principal payment date of any of such Bonds maturing serially and in each month thereafter so long as any of such Bonds so maturing are Outstanding, there shall be credited to the 1997 Certificate Harbor Principal Account an amount such that, if the same amount were so credited to this account on the first Business Day of such first month and each succeeding month thereafter prior to the next date upon which the principal of any of said Bonds maturing serially becomes due and payable, the aggregate of the amounts on credit will on the first Business Day of the month preceding each such next principal payment date be equal to the principal amount of said Bonds becoming due on such principal payment date.

In the event of the issuance of any Series of Bonds under the Certificate in the form customarily known as "term Bonds," for the purpose of retiring such Bonds, or to reimburse the Support Provider for a draw on the Support Facility made to provide funds for the payment of such term Bonds, commencing with the month which is 12 months immediately prior to the date upon which the first Sinking Fund Installment to provide for the retirement of such term Bonds is due, and in each month thereafter so long as any of such Bonds are Outstanding, there shall be credited to the 1997 Certificate Harbor Principal Account from amounts on deposit in the 1997 Certificate Harbor Revenue Special Fund an amount such that, if the same amount were so credited on the first Business Day of such first month and each succeeding month thereafter prior to the next date upon which a Sinking Fund Installment falls due, the aggregate of the amounts so credited will on the first Business Day of the month preceding each such next date upon which a Sinking Fund Installment falls due be sufficient to redeem the term Bonds of each Series in the principal amounts and at the times specified in the Supplemental Certificate authorizing the issuance thereof.

The amounts of moneys credited to the 1997 Certificate Harbor Principal Account for the purpose of providing for the retirement of Bonds issued in the form of term Bonds shall be applied by the Director of Finance, without further authorization or direction, to the redemption of the Bonds of a Series on each date on which a Sinking Fund Installment for said Series of Bonds is due in the respective principal amounts required to be credited on such dates, or, if so directed by the Department, commencing with respect to each Series of Bonds with the second Sinking Fund Installment for each such Series, semiannually on both such due date and the day six months prior to such due date so that the aggregate amount so applied in each calendar year will equal the respective principal amount required to be credited on such Sinking Fund Installment dates. The Director of Finance shall give notice of all such redemptions, in the name and on behalf of the State, in accordance with the provisions of Article III of the Certificate. The Director of Finance may also, without further authorization or direction, apply the moneys credited to the 1997 Certificate Harbor Principal Account for the retirement of term Bonds of a Series to the purchase of said Bonds; provided, however, that no Bonds shall be purchased during the interval between the date on which notice of redemption of said Bonds from Sinking Fund Installments for such Series is given and the date of redemption set forth in such notice, unless the Bonds so purchased are Bonds called for redemption in such notice or are purchased from moneys other than those credited to the 1997 Certificate Harbor Principal Account for such Series, and provided, further, that no purchases of Bonds shall be made if such purchase would require the sale at a loss of securities credited to the 1997 Certificate Harbor Principal Account unless the difference between the actual purchase price (including accrued interest and any brokerage or other charge) paid for such Bonds and the then maximum purchase price (plus accrued interest) permitted to be paid therefor is greater than the loss upon the sale of any such securities. Any purchase of Bonds pursuant to this paragraph may be made with or without tenders of Bonds and at either public or private sale, but in any event at a purchase price (including accrued interest and any brokerage or other charge) not to exceed the then applicable Redemption Price, plus accrued interest. All Bonds purchased or redeemed pursuant to this paragraph shall be canceled and not reissued.

If the principal amount of Bonds purchased and retired through application of any Sinking Fund Installment shall exceed the amount of such Sinking Fund Installment, or in the event of the purchase or redemption of Bonds of any Series and maturity for which Sinking Fund Installments have been established from moneys other than Sinking Fund Installments, such excess or the principal amount of Bonds so purchased or redeemed, as the case may be, shall be credited toward future Sinking Fund Installments either (i) in order of their due dates or (ii) in such order as the Department establishes in a Certificate of the Director of Transportation and delivered to the Registrar on or prior to the forty-fifth day preceding the next Sinking Fund Installment due date established for such Bonds.

1997 Certificate Harbor Debt Service Reserve Account. (Certificate – Section 5.05.) There is hereby created in the 1997 Certificate Harbor Revenue Special Fund a "1997 Certificate Harbor Debt Service Reserve Account," and within such Account, the Series 2013 Debt Service Reserve Subaccount, the Series 2020 Debt Service Reserve Subaccount, and such other Debt Service Reserve Subaccounts as may hereafter be established by a Supplemental Certificate, which in each case, shall be maintained in an amount equal to the applicable Reserve Requirement and shall be disbursed solely for the purpose of paying principal of and interest on the applicable Bonds secured thereby (and shall not be available to pay the interest on or principal of any other Bonds) for the payment of which there shall be insufficient money in the 1997 Certificate Harbor Interest Account or 1997 Certificate Harbor Principal Account. The applicable Reserve Requirement shall be determined at the time of issuance of a Series of Bonds, July 1 of each year, at the time any Variable Rate Bonds of a Series case to be Variable Rate Bonds, and such other time or times as the Department shall determine and shall be funded upon the issuance of each Series of Bonds. Subject to the remaining provisions of this paragraph, (a) if at any time during a

Fiscal Year the moneys on credit to any Debt Service Reserve Subaccount are less than the applicable Reserve Requirement (including any deficiency in a Support Facility used to fund all or a portion of the Reserve Requirement), the amount of the deficiency shall be restored from the first available Net Revenues (on a proportionate basis across all deficient Debt Service Reserve Subaccounts); (b) if at the end of any Fiscal Year, the moneys credited to any Debt Service Reserve Subaccount are less than the applicable Reserve Requirement, the Department shall (after making the deposits and credits required by Sections 5.01 through 5.04 hereof) credit an amount to such Debt Service Reserve Subaccount (on a proportionate basis across all deficient Debt Service Reserve Subaccounts) from Net Revenues on deposit in the 1997 Certificate Harbor Revenue Special Fund so that there shall then be credited to such Debt Service Reserve Subaccount an amount equal to the applicable Reserve Requirement; (c) if the deficiency in any Debt Service Reserve Subaccount is due to the application of moneys credited thereto to pay principal of or interest on the related Series of Bonds, then in each month, commencing with the month which follows the month in which such application is made from such Debt Service Reserve Subaccount, the Department shall (after making the deposits and credit required by Sections 5.01 through 5.04 hereof) credit from the Net Revenues on deposit in the 1997 Certificate Harbor Revenue Special Fund to such Debt Service Reserve Subaccount an amount which, if the same amount were so credited in each month thereafter until the day which is 60 months from the making of the first of such credits, there shall be credited to such subaccount on such day an amount not less than the applicable Reserve Requirement; and (d) if at any time and for so long as the moneys credited to a Debt Service Reserve Subaccount are at least equal to the applicable Reserve Requirement, no further credits shall be made to the account, and any amounts in excess of the applicable Reserve Requirement may be retained in the 1997 Certificate Harbor Revenue Special Fund for use and application as are all other moneys on deposit therein.

When a Series of Bonds is refunded in whole or in part or is otherwise paid so that all of the Bonds of such Series are no longer Outstanding, moneys credited to the Debt Service Reserve Subaccount related to such Series of Bonds may be withdrawn from the 1997 Certificate Harbor Revenue Special Fund to pay or provide for the payment of such Bonds or refunded Bonds, as the case may be, or may be transferred and applied to any reserve fund or account established for the Refunding Bonds issued to refund such refunded Bonds, provided that immediately after such withdrawal or transfer there shall be on credit to each Debt Service Reserve Subaccount within the 1997 Certificate Harbor Debt Service Reserve Account an amount equal to the applicable Reserve Requirement.

The Department may, if and as authorized pursuant to a Supplemental Certificate, use a surety bond or an insurance policy payable to the Department for the benefit of the Holders of a Series of Additional Bonds to satisfy the Reserve Requirement applicable thereto.

In lieu of the credit of moneys to the Series 2013 Debt Service Reserve Subaccount, there shall be credited to such Subaccount the municipal bond debt service reserve fund insurance policy 212945R issued on November 20, 2010 as amended and by endorsement dated August 2, 2013 issued by Assured Guaranty Municipal Corp. (the "2013 Surety"). If a disbursement is made pursuant to the 2013 Surety, the Department shall be obligated either (i) to reinstate the maximum limits of the 2013 Surety, or (ii) to credit to the Series 2013 Debt Service Reserve Subaccount funds in the amount necessary, when added to the remaining balance of the 2013 Surety, to increase the total amount available thereunder to the applicable Reserve Requirement; provided, however, that a failure to immediately restore such Reserve Requirement shall not constitute an Event of Default if the Reserve Requirement is restored within the time period permitted by Section 11.01(c) hereof. Notwithstanding the provisions of said Section 11.01(c), the Department shall not permit any surety bond, insurance policy, or letter of credit which has been established in lieu of a deposit into a Debt Service Reserve Subaccount, including the 2013 Surety, to terminate or expire prior to depositing to such Debt Service Reserve Subaccount the amount satisfied previously by such surety bond, insurance policy, or letter of credit.

1997 Certificate Harbor Reserve and Contingency Account. (Certificate – Section 5.06.) Moneys on credit to the 1997 Certificate Harbor Reserve and Contingency Account may be used (i) to make up any deficiency with respect to any Series of Bonds, Capital Improvement Bonds or 1990 Certificate Harbor Revenue Bonds in the 1997 Certificate Harbor Interest Account, the 1997 Certificate Harbor Principal Account and the 1997 Certificate Harbor Debt Service Reserve Account, (ii) to the extent not used to make up any such deficiencies and to the extent all other legally available moneys have been applied, moneys on credit to the 1997 Certificate Harbor Reserve and Contingency Account may be used for any other purpose within the jurisdiction, powers, duties and functions of the Department related to the Undertaking and (iii) to the extent not required pursuant to clauses (i) and (ii) above, moneys on credit to the 1997 Certificate Harbor Reserve and Contingency Account in excess of 25% of the maximum Aggregate Certificate Bond Service due in any future fiscal year may be transferred out of the 1997 Certificate Harbor Reserve and Contingency Account and applied in any legally permissible manner.

Investment of Moneys in Funds and Accounts. (Certificate – Section 5.07.) Moneys in the 1997 Certificate Harbor Revenue Special Fund credited to the 1997 Certificate Harbor Interest Account and the 1997 Certificate Harbor Principal Account therein shall be invested by the Director of Finance in Investment Securities so as to mature in such amounts and at such times so that the principal of and interest and premium, if any, on the Bonds can be paid when due, whether at maturity or upon the redemption thereof. Moneys in the 1997 Certificate Harbor Revenue Special Fund on credit to the 1997 Certificate Harbor Debt Service Reserve Account therein shall be invested by the Director of Finance in Federal Securities so as to mature within five years from the date of investment, but in any event by no later than the last or final maturity date of the Bonds then Outstanding. The Department thereby grants its approval for all investments made by the Director of Finance pursuant to this paragraph, and no further approvals of the Department shall be necessary therefor.

Income derived from investments made pursuant to Section 5.07 of the Certificate shall be treated as Revenues; expenses of purchase, safekeeping, sale and redemption, and all other expenses attributable to such investments shall be proper expenses of the Undertaking. Securities so purchased shall be considered as being deposited in the custody or control of the Director of Finance by the Department.

All moneys in the 1997 Certificate Harbor Revenue Special Fund, the investment of which is not provided for in Section 5.07 of the Certificate, may be invested, and the income from such investments disbursed or applied, as may be provided by applicable law.

All securities shall constitute a part of the respective fund or account from which the investment therein was made. For the purposes of making any calculations or computations at any time and from time to time of the amounts in the 1997 Certificate Harbor Special Fund, or any fund or account therein, which may be required for the purposes of the Certificate, the Value of Investment Securities shall be determined at the time of any withdrawal therefrom and as of July 1 of each year.

The Department will maintain records to enable it to cause to be made the computations necessary to determine whether a Series of Bonds the interest on which is excludable from gross income for federal income tax purposes meets the requirements of Section 148 of the Code, including, but not limited to, records showing the dates and amounts of all investments of funds credited to the 1997 Certificate Harbor Interest Account, the 1997 Certificate Harbor Principal Account and the 1997 Certificate Harbor Debt Service Reserve Account and the dates and amounts of the receipts of the earnings, sales proceeds and maturities of such investments.

Certain Covenants by the State

The Rate Covenant is summarized in this Official Statement under the heading "SECURITY FOR THE BONDS – Rates and Charges." As to certain other subjects, summaries of the State's covenants follow:

Accounts – Independent Public Accountant. (Certificate – Section 6.06.) The Department shall maintain and keep, or cause to be maintained and kept, proper books, records and accounts in which complete and correct entries shall be made of all dealings and transactions relating to the Undertaking. Such accounts shall show the amount of the Revenues and the application of such Revenues to the purposes specified in the Certificate and in the Capital Improvement Certificate and the 1990 Certificate and all financial transactions in connection therewith, including all deposits into and disbursements from the Harbor Special Fund, the Harbor Capital Improvement Special Fund, the Harbor Revenue Special Fund and the 1997 Certificate Harbor Revenue Special Fund.

The Department shall cause its accounts to be audited by an accountant (the "Independent Public Accountant") employed by it, such period of appointment or employment to be from year to year. Such Independent Public Accountant shall be selected with special reference to his general knowledge, skill and experience in auditing books and accounts and shall be a certified or licensed accountant or firm of certified or licensed accountants who, or each of whom, is in fact independent and not under the domination of the State (including the Department) and who, or each of whom, is not connected with the State (including the Department) as an officer or employee thereof, but who may be regularly retained to make annual or similar audits of any of the books of the State (including the Department). Such audit shall be made annually and shall be completed within 270 days after the close of each Fiscal Year, shall set forth the items required to determine compliance with the Rate Covenant and shall include a detailed statement of the Revenues and the expenditure and application thereof for such year and a detailed balance sheet of the Undertaking as of the close of such year, including therein a statement of the Harbor Special Fund, the Capital Improvement Special Fund and accounts therein, the Harbor Revenue Special Fund and accounts therein and the 1997 Certificate Harbor Revenue Special Fund and accounts therein, and be accompanied in writing by a certificate of the Independent Public Accountant. Each such audit shall certify as to the correctness of the schedules contained in the audit report. A copy of each such annual audit shall be filed with the Director of Finance and shall be open for public inspection and shall be mailed to any Holder of the Bonds filing with the Department a request for same. The cost of any such audit shall be an Operation and Maintenance Expense.

Consulting Engineer. (Certificate – Section 6.07.) The Department shall appoint and retain from time to time a Consulting Engineer who shall be an independent engineer or engineers, engineering firm or corporation having a national and favorable reputation for skill and experience in respect to development, operation and management of harbor facilities and who, or each of whom, shall be paid by the Department but shall in fact be independent and not under the domination of the State (including the Department) and who, or each of whom, shall not be connected with the State (including the Department) as an officer or employee thereof, but who may be regularly retained to make triennial or other periodic reports to the State (including the Department) as to other properties thereof. The Consulting Engineer shall be available to advise the Department upon request and to make such investigations and determinations as may be necessary from time to time under the provisions of the Certificate. The cost to the Department of the Consulting Engineer shall be an Operation and Maintenance Expense.

For purposes of determining compliance with the Rate Covenant, satisfaction of the requirements for the issuance of Additional Bonds, and certain other matters, the Department is authorized to use a Harbor Consultant, which may be the Independent Public Accountant or Consulting Engineer.

Insurance. (Certificate – Section 6.09.) The Department will carry, or cause to be carried, insurance with generally recognized responsible insurers with policies payable to the Department against such risks, accidents or casualties and in such amounts as the Department determines to be prudent. Any insurance carried by the Department may be procured and maintained as part of or in conjunction with any other policy or policies carried by it or by the State. The Department and the State may be self-insured and establish special funds for self-insurance. The Department shall seek advice and counsel from time to time from the State Risk Management staff or their consultants to advise and assist the Department with respect to the insurance program of the Undertaking, and the Department shall take into consideration the advice of such persons in the placement of insurance and the establishment of any self-insurance fund or funds.

The proceeds of all insurance, to the extent the same shall be paid directly to the Department, shall be held by the Department under and subject to the Capital Improvement Certificate, the 1990 Certificate and the Certificate and applied as follows: (i) the proceeds of property insurance shall be deposited in the treasury of the State and held as a special trust fund, separate and apart from all other funds and moneys, to the end that such proceeds of insurance shall be applied to the reconstruction, restoration or replacement of the properties of the Undertaking damaged or destroyed; (ii) the proceeds of rental or business interruption insurance shall be deposited in the 1997 Certificate Harbor Revenue Special Fund for use and application as are all other moneys deposited in that fund; and (iii) the proceeds of personal injury insurance and any worker's compensation insurance shall be held separate and apart in the 1997 Certificate Harbor Revenue Special Fund and applied toward extinguishing or satisfying or remedying the liability or loss with respect to which such proceeds may be paid.

The Department will, with respect to each such loss, promptly and with all reasonable dispatch, repair, restore, reconstruct or replace the property damaged or destroyed or replace the same with other revenue-producing property or facilities to constitute part of the Undertaking, insofar as the same may be accomplished from proceeds of insurance carried pursuant to clause (i) above, to the extent necessary to the proper conduct of the operation of the business of the Undertaking and in any event so that the Undertaking shall possess at least the same revenue-producing capability as existed prior to the damage and shall apply the proceeds of any insurance policy or policies or self-insurance fund or funds covering such damage or loss for that purpose to the extent required therefor. Notwithstanding the foregoing provisions of this paragraph, no repair, restoration, reconstruction or replacement shall be required if the Department finds that repair, restoration, reconstruction or replacement of the damaged or destroyed property is not in the best interest of the Department and, based on a certificate of the Harbor Consultant, that the failure to repair, restore, reconstruct or replace the damaged or destroyed property will not cause the Revenues in any future Fiscal Year to be less than an amount sufficient to enable the Department to comply with all covenants and conditions of the Capital Improvement Certificate, the 1990 Certificate and the Certificate or impair the security or the payment of the Capital Improvement Bonds, the 1990 Certificate Harbor Revenue Bonds and the Bonds. Any proceeds of any insurance policy or policies or self-insurance fund or funds not required for the purpose of repair, reconstruction, restoration or replacement as aforesaid shall be paid into the Harbor Special Fund, to be used and applied as are other moneys deposited in that fund.

The cost to the Department of all insurance so required by the Certificate shall constitute an Operation and Maintenance Expense.

Annual Budget. (Certificate – Section 6.10.) The Department shall prepare and file with the proper officers of the State, at the time and in the manner prescribed by law, an estimated budget of Revenues and Operation and Maintenance Expenses, Bond Service, capital improvements and any other proposed expenditures for the Undertaking for each Fiscal Year, which budgets shall be open to inspection by any Holder of Bonds or other interested party.

Not To Alienate Ownership, Operation, Management and Control of Undertaking; Disposition of Worn-Out or Useless Property; Right To Alienate Certain Properties for Noncompetitive Uses. (Certificate – Section 6.11.) The State, whether acting by and through the Department or otherwise, will not sell, lease or otherwise dispose of any properties constituting part of the Undertaking, nor take any action or cause any action to be taken, to alienate from the State the ownership, management and control of the Undertaking and any and all properties constituting a part thereof, including any land or rights in land comprising the site thereof or necessary to the use or operation thereof, unless simultaneously with any such sale, lease, disposition or alienation due and adequate provision is made for the payment of the Bonds, including interest and premium (if any) thereon, or there is paid into, or due and adequate provision is made for the paying into, the treasury of the State for deposit in a separate fund therein, of an amount of cash sufficient to retire, and to pay the interest to accrue prior to such retirement on, all Bonds then Outstanding, together with any premium upon the redemption thereof; provided, however, that (i) the provisions of this Section shall not be deemed to prohibit, or construed as prohibiting, the leasing in the normal and customary course of business according to the schedule of rates, rentals and charges of the Department, of properties constituting the Undertaking, which rates, rentals and charges shall be part of the Revenues and which properties shall remain part of the Undertaking, but any such leasing shall be subject to the rights of the Holders of the Bonds and all the provisions of the Certificate; (ii) the State, whether acting through the Department or otherwise, may from time to time sell, lease or otherwise dispose of any portion of the Undertaking (including any real and personal property comprising a part thereof) which the Department has determined has become unserviceable, inadequate, obsolete, worn-out or unfit to be used, or no longer required for use, in connection with the operation of the Undertaking or the maintenance of the Revenues therefrom; (iii) the State, whether acting through the Department or otherwise, may transfer to any other department, board, bureau, agency or other subdivision of the State or to any city, county or other municipal corporation in the State or any department, board, bureau, agency or other subdivision thereof, or to any nonprofit corporation or association, any property constituting part of the Undertaking and such property shall thereafter no longer constitute part of the Undertaking and any moneys derived therefrom shall no longer constitute part of the Revenues under clause (A) of the definition thereof, and such property may be sold, leased or otherwise disposed of as the transferee thereof may determine, if (a) the use thereafter to be made of such property after such transfer is noncompetitive with the Undertaking and (b) in the opinion of the Harbor Consultant such transfer will not reduce the Revenues below the amount required to be produced the Rate Covenant without any increase in the schedule of rates, rents, fees and charges then in effect for the Undertaking or if in the opinion of the Harbor Consultant such transfer would reduce the Revenues below the amount required to be produced in accordance with the Rate Covenant, due and adequate provision is made for the payment of the Bonds, including interest and premium (if any) thereon, or due and adequate provision is made for the payment into the 1997 Certificate Harbor Revenue Special Fund in each year in which any of the Bonds remain Outstanding of an amount equal to the difference between the Revenues produced in each such year and the amount of Revenues required to be produced in such year in accordance with the Rate Covenant; and (iv) the State, whether acting through the Department or otherwise, may from time to time sell, transfer or otherwise dispose of any property constituting part of the Undertaking and such property shall thereafter no longer constitute part of the

Undertaking and any moneys derived therefrom shall no longer constitute part of the Revenues under clause (A) of the definition thereof, and such property may be sold, leased or otherwise disposed of as the transferee may determine, if (a) the proceeds of any such sale or transfer are deposited in the 1997 Certificate Harbor Revenue Special Fund as security for the payment of all Bonds then Outstanding, (b) in the opinion of the Harbor Consultant such sale, transfer or other disposition will not reduce Aggregate Net Revenues below the amount equal to one and twenty-five hundredths (1.25) times the amount required to be produced by the Rate Covenant without any increase in the schedule of rates, rents, fees and charges then in effect for the Undertaking and (c) the Department shall receive written confirmation from the Rating Agency that the rating on the Bonds Outstanding as then in effect shall not be reduced as a result of such sale, transfer or disposition. For the purposes of the provisos numbered (iii) and (iv) to the preceding sentence, the Harbor Consultant may assume that all parties to contractual or other agreements will comply with the terms and provisions of such contracts or agreements, including any commitment to pay amounts into the 1997 Certificate Harbor Revenue Special Fund, and any transfer of property to the University of Hawaii or other educational institution for use by it for oceanographic research and study (including therein any such research or study for which such institution may receive income or compensation) shall be considered to be noncompetitive.

Not To Dilute Security for the Bonds. (Certificate – Section 6.12.) Unless, and only while and so long as, due and adequate provision is made for the payment of the Bonds, including interest and premium (if any) thereon, or due and adequate provision is made for the payment into the 1997 Certificate Harbor Revenue Special Fund for use and application in accordance with the provisions of the Certificate the same as all other moneys deposited in that fund, in each year while any of the Bonds remain Outstanding, from moneys lawfully available therefor other than the Revenues, of amounts which when added to the Revenues paid into the 1997 Certificate Harbor Revenue Special Fund in such year, will at least equal the amount of Revenues required to be produced in such year in accordance with the provisions of the Rate Covenant, the State, whether acting by and through the Department or by and through any other department, bureau, board or other agency thereof, shall not own, engage in, erect, construct, maintain or operate any harbors, ports, docks, wharves, piers, warehouses or other waterfront or harbor facilities and improvements of a commercial nature (excluding properties principally used for recreation or the landing of fish, except properties located at Kewalo Basin, Ewa of Ala Moana Park, Honolulu, and its annex) which are competitive with the Undertaking unless the income derived therefrom constitutes part of the Revenues, to be deposited, used and applied as are all other Revenues, in which event such properties and facilities may constitute part of the Undertaking; provided, however, that nothing in this Section shall be construed as prohibiting the State from retaining or placing under the management and control of some department board, bureau or agency other than the Department, harbor properties and facilities constituting or to constitute a Foreign Trade Zone within the meaning of Chapter 212, HRS, so long as in the opinion of the Harbor Consultant the operations of such Foreign Trade Zone are noncompetitive with the Undertaking, or if in the opinion of the Harbor Consultant the operations of the same are at any time competitive with the Undertaking, either (i) all income derived with respect to such properties through the loading or unloading of cargo from vessels or from wharfage or from harbor fees or demurrage or other fees and charges normally and customarily paid as part of the loading and unloading of cargo and which would normally accrue to or be under the administration and control of the Department constitutes by law part of the Revenues and is paid into the Harbor Special Fund, in which event the costs of operation and maintenance of those properties from which such income is derived may be paid as costs of operation and maintenance of the Undertaking to the same extent as would be the case if such properties were in fact part of the Undertaking, or (ii) due and adequate provision is made for the payment of the Bonds, including interest and premium (if any) thereon, or due and adequate provision is made for the payment, in each year while any of the Bonds remain Outstanding, from moneys lawfully available therefor other than the Revenues, into the 1997 Certificate Harbor Revenue Special Fund for use and application in accordance therewith the same as all other moneys paid into that fund, of amounts which, when added to the Revenues paid into that fund in each such year, will produce the total amount required to be produced in such year in accordance with the Rate Covenant, and provided, further, that the operations of any such Foreign Trade Zone which is in existence at the time of effectiveness of the Certificate shall be deemed to be noncompetitive with the Undertaking.

Net Rent Leases. (Certificate – Section 7.01.) The State, either in its own name or acting by and through the Department, may enter into contracts, leases or other agreements pursuant to which the Department will agree to construct a pier, dock, wharf, warehouse or other harbor or waterfront facility on land constituting part of the Undertaking or will agree to acquire or construct a pier, dock, wharf, warehouse or other harbor or waterfront facility on land not then constituting part of the Undertaking (which land if not then owned by the State may be acquired for such purpose), or to acquire and remodel, renovate or rehabilitate a building, structure or other facility (including the site thereof) for harbor purposes (all said piers, docks, wharfs, warehouses, buildings, structures and facilities herein referred to as the "Improvement"), and lease such Improvement under the following conditions:

1. No Improvement will be constructed or acquired and leased for use or occupation (a) if the Improvement would provide services, facilities or supplies which then may be adequately made available through the Undertaking as then existing and (b) if the result of the use or occupation of such Improvement under the contract, lease or agreement therefor would result in a reduction of Net Revenues below the minimum Net Revenues required to be produced and maintained in accordance with the Rate Covenant.

2. A Net Rent Lease (hereinafter defined) shall be entered into between the State (either in the name of the State or by and through the Department), as lessor and the user or occupier of such Improvement, as lessee, pursuant to which the lessee shall agree to pay the Department in each year during the term thereof, which term shall not extend beyond the useful life of the Improvement as estimated by the Harbor Consultant, (i) fixed rentals in periodic installments which will be sufficient to pay during such term the principal of and interest on all Special Obligation Bonds to be issued to pay the cost of construction or acquisition of the Improvement as the same respectively mature, and (ii) such further rentals as shall be necessary or required to provide or maintain all reserves required for such obligations and to pay all trustee's, fiscal agents' and paying agents' fees and expenses in connection therewith.

3. The Net Rent Lease shall provide for payments in periodic installments and as additional rental thereunder to the Department, free and clear of all charges under said lease, (i) of a properly allocable share of the (a) payments to the State to reimburse the general fund of the State for Reimbursable General Obligation Bonds, (b) payments to the State to reimburse administrative costs incurred by the State treasury in maintaining funds and accounts relating to the Undertaking and (c) administrative costs of the Department, and (ii) if the land on which the Improvement is to be constructed constitutes a part of the Undertaking, of a ground rental for the ground upon which such Improvement is located, in amounts not less than shall be required pursuant to the schedule for rental of ground space in the Undertaking as fixed from time to time by the Department. All such additional rentals shall constitute Revenues and be paid into the Harbor Special Fund, to be used and applied as are other moneys deposited therein.

4. The Net Rent Lease shall provide that all rentals payable thereunder pursuant to paragraph 2. above which are not required to pay Special Obligation Bonds issued for the Improvement leased thereby, including reserves for such obligations, or required to pay trustee's, fiscal agents' and paying agents' fees and expenses in connection therewith, shall be paid to the Department for its own use and purposes, and, to the extent permitted by law, such excess amounts shall constitute Revenues and be paid into the Harbor Special Fund, to be used and applied as are other moneys deposited therein.

The term "Net Rent Lease" shall mean a lease of property encompassed within the introductory sentence of this Section, under and pursuant to which the lessee agrees to pay to the Department the rentals required by paragraphs 2. and 3. above, and to pay in addition all costs connected with the ownership, operation, maintenance, repair, renewal and rehabilitation of the leased property (including, without limitation, insurance, utilities, taxes or payments in lieu of taxes), under such conditions so that the amounts payable to the Department pursuant to said lease (exclusive of the ground rental, if any, payable pursuant to said paragraph 3.) shall be certainly paid whether or not the leased property is capable of being occupied and used by the lessee.

Special Obligation Bonds. (Certificate – Section 7.02.) The State, acting by and through the Department or otherwise, may issue Special Obligation Bonds for the purpose of constructing Improvements on ground then constituting part of the Undertaking or on ground not then constituting part of the Undertaking (which ground may then be owned by the State or acquired for that purpose), or to acquire and renovate and rehabilitate an Improvement (including the acquisition of necessary land), for lease pursuant to the provisions of the Certificate. (See "*Certain Covenants by the State - Net Rent Leases*" above.) Such Special Obligation Bonds (i) shall be payable solely from the rentals payable by the lessee under the Net Rent Lease entered into with respect to the Improvement to be financed from such Special Obligation Bonds; (ii) shall not be a charge or claim against or payable from the Revenues or any other moneys in the Harbor Special Fund, Capital Improvement Special Fund, Harbor Revenue

Special Fund or 1997 Certificate Harbor Revenue Special Fund; (iii) shall mature within both the useful life of the Improvement (as estimated by the Harbor Consultant) to be financed from such Special Obligation Bonds and the term of the Net Rent Lease entered into with respect to such Improvement; and (iv) shall not be issued unless and until the following conditions have been met:

A. a certificate of the Harbor Consultant has been filed with the Department setting forth the opinion of such consultant as to the estimated useful life of the Improvement, the costs of acquisition or construction of which are to be financed from such Special Obligation Bonds, and certifying (i) that the construction or acquisition and leasing for use or occupation of such Improvement would not violate the conditions of paragraph 1 under "*Net Rent Leases*" above; (ii) that the lease referred to in paragraphs 2, 3 and 4 under "*Certain Covenants by the State – Net Rent Leases*" above has been entered into; (iii) that the payments to be made by the lessee pursuant to the provisions of such paragraph 2 will be sufficient to pay the principal of and interest and premium (if any) on the Special Obligation Bonds as the same mature and to pay all trustee's, fiscal agents' and paying agents' fees and expenses in connection therewith; and (iv) that the additional rentals to be paid by the lessee pursuant to such paragraph 3 are fair and reasonable and as to the ground rental required by that paragraph (if any such ground rent be required) is in compliance with the schedule established by the Department for the rental of lands of the Undertaking; and

B. there shall have been filed with the Department an Opinion of Counsel that the lease for the Improvement to be financed from such Special Obligation Bonds entered into pursuant to the Certificate is valid according to its terms and complies with the provisions of such paragraphs 2, 3 and 4.

Refunding of Special Obligation Bonds. (Certificate – Section 7.03.) Outstanding Bonds of an issue of Special Obligation Bonds may be refunded by an issue of refunding Special Obligation Bonds, provided that: (1) the refunding Special Obligation Bonds shall be secured by and payable solely from the rentals from that Improvement, from the rentals of which the Special Obligation Bonds to be refunded were payable; (2) the aggregate amount of principal, interest and premium (if any) upon the redemption thereof from any sinking fund which shall be payable on the refunding Special Obligation Bonds shall not be greater than the aggregate amount of principal, interest and premium (if any) upon the redemption thereof from any sinking fund which would be payable on the Special Obligation Bonds to be refunded were such refunding not to occur; (3) the refunding will not decrease the rentals payable for the Improvement payable pursuant to paragraph 3 under "*Certain Covenants by the State – Net Rent Leases*" above; (4) the Net Rent Lease for the Improvement during the life of such refunding Bonds shall comply with paragraphs 2, 3 and 4 under "*Certain Covenants by the State – Net Rent Leases*" above; (5) the refunding Special Obligation Bonds shall mature within the useful life of the Improvement (as estimated by the Harbor Consultant) and within the term of the new or amended lease entered into with respect to such refunding; (6) the termination date of the term of any new or amended lease entered into with respect to such Improvement shall not be later than the termination date of the term of the lease entered into upon the issuance of the Special Obligation Bonds to be refunded; and (7) the Certificate of the Harbor Consultant and the Opinion of Counsel required under "*Certain Covenants by the State – Special Obligation Bonds*" above shall be filed with respect to such refunding Special Obligation Bonds. Special Obligation Bonds may also be refunded by Additional Bonds if (i) all such Special Obligation Bonds pertaining to a particular Improvement are refunded at one time from such Additional Bonds; (ii) the conditions contained in the Certificate for the issuance of Additional Bonds are complied with upon such refunding, and, for the purposes of any such refunding, such refunding shall be considered as though the Department were acquiring such Improvement by the issuance of such Additional Bonds; and (iii) upon any such refunding all leases pertaining to the Improvement shall be amended to include a provision to the effect that such lease is subject to the rights of the Holders of the Bonds.

When Improvement Shall Constitute Part of the Undertaking; Priority of Payments and Credits for Bonds Issued Under the Certificate. (Certificate – Section 7.04.) So long as any Special Obligation Bonds issued for an Improvement are outstanding and unpaid, or until the payment thereof shall have been duly and adequately provided for, such Improvement shall not be considered to be part of the Undertaking. Upon the retirement of the indebtedness evidenced by such Special Obligation Bonds or evidenced by refunding Special Obligation Bonds, unless such Improvement is subject to an option to purchase by the lessee and such option shall have been exercised, all rentals and other income thereafter received by the State (including by the Department) from the Improvement for which such Special Obligation Bonds were issued shall, to the extent permitted by law, constitute Revenues and be paid into the Harbor Special Fund, to be used and applied as are other moneys deposited therein, and if such rentals and other income shall constitute Revenues, such Improvement shall, unless contrary to law, constitute part of the Undertaking; provided, however, that if any such Special Obligation Bonds are retired through the refunding thereof from the proceeds of Additional Bonds, such Improvement may not be subject to any purchase option and in all events (subject to the provisions of the Certificate permitting alienation or disposition of Property) shall thereafter constitute part of the Undertaking and the rentals and other income therefrom shall constitute part of the Revenues; and provided, further, that, except with respect to properties which have become part of the Undertaking by reason of the issuance of Additional Bonds to refund the Special Obligation Bonds issued therefor (the costs of operation and maintenance of which properties shall be paid or provided for in the same manner as are such costs incurred with respect to all other properties constituting part of the Undertaking), any expenditure of moneys from the Revenues or the Harbor Special Fund for operation and maintenance of any property constituting or which constituted an Improvement shall be made only after the payments and credits required by priority items "FIRST" and "SECOND" described above under the caption "*Allocation and Application of Revenues*" have been duly made or provided for.

Right of State To Execute Supplemental Certificates Without Consent of Holders of Bonds. (Certificate – Section 10.01.) The State, acting by and through the Department or as may otherwise then be provided by law, from time to time and at any time and without the consent or concurrence of the Holder of any Bond, may make and execute a Supplemental Certificate (i) for the purpose of providing for the issuance of Additional Bonds or the issuance of Refunding Bonds, (ii) to make any changes or modifications of the Certificate or amendments, additions or deletions to the Certificate which may be required to permit the Certificate to be qualified under the Trust Indenture Act of 1939 of the United States of America and (iii) if the provisions of such Supplemental Certificate shall not materially adversely affect the rights of the Holders of the Bonds then Outstanding, for any one or more of the following purposes:

1. To make any changes or corrections in the Certificate or any supplement as to which it shall have been advised by its counsel that the same are minor clerical or typographical corrections or changes or are required for the purpose of curing or correcting any ambiguity or defective or inconsistent provision or omission or mistake or manifest error contained in the Certificate or in any such supplement thereto, or to insert in the Certificate such provisions clarifying matters or questions arising under the Certificate as are necessary or desirable;

2. To add additional covenants and agreements of the State for the purpose of further securing the payment of the Bonds, provided that such additional covenants and agreements are not contrary to or inconsistent with the covenants and agreements contained in the Certificate as originally issued or as amended with the consent of Bondholders;

3. To surrender any right, power or privilege reserved to or conferred upon the State by the terms of the Certificate or any supplement thereto;

4. To confirm as further assurance any lien, pledge or charge, or the subjection of any additional revenue, property or collateral to any lien, pledge or charge, created or to be created by the provisions of the Certificate or any supplement thereto;

5. To grant to or confer upon the Holders of the Bonds or any Support Provider any additional rights, remedies, powers, authority or security that lawfully may be granted to or conferred upon them;

6. To prescribe further limitations and restrictions upon the issuance of Bonds and the incurring of indebtedness by the State payable from the Revenues;

7. To include any modifications, amendments or supplements as may be required with respect to any Series of Bonds in order to obtain a favorable rating or ratings from any Rating Agency;

8. To add or modify any provision of the Certificate as a result of enactment of any State or federal law which changes the treatment of the Bonds or interest thereon for tax purposes;

9. To include any modifications, amendments or supplements as may be required with respect to any Series of Bonds in order to permit such Series to be available through a book-entry system maintained by, or to be cleared through, The Depository Trust Company, New York, New York, or other securities depository, clearing corporation, or clearing agency;

10. To make any changes or corrections to the Certificate as are necessary to provide for the issuance of Bonds in a form not contemplated by the express provisions of the Certificate, including, without limitation, in the form of commercial paper, indebtedness which converts from a variable rate to a fixed rate, indebtedness which initially compounds or accrues interest and then converts to a current-interest-bearing instrument, and a Series of Bonds whereby the State pays a particular rate of interest and such interest payment is divided in a manner such that certain Bondholders receive a variable interest rate determined by the market and other Bondholders receive a residual interest rate approximating the difference between the interest payment paid by the State and such variable rate of interest; or

11. To modify, amend or supplement in any other respect any of the provisions of the Certificate, provided that such modifications shall have no adverse effect as to any Bond or Bonds which are then Outstanding.

Except for Supplemental Certificates providing for the issuance of Additional Bonds or Refunding Bonds, the State shall not make and execute any instrument or Supplemental Certificate, unless in the Opinion of Counsel the making and entering into of such instrument or such Supplemental Certificate is permitted by the provisions of the Certificate and the provisions of such instrument or of such Supplemental Certificate are not contrary to or inconsistent with the covenants or agreements of the State contained in the Certificate as originally issued or as amended with the consent of the Bondholders.

Execution of Supplemental Certificates With Consent of Bondholders. (Certificate – Section 10.02.) With the consent of the Holders of not less than a majority of the principal amount of the Bonds then Outstanding, the State, acting by and through the Department or as may otherwise then be provided by law, from time to time and at any time, may make and execute an instrument or certificate amending or supplementing the provisions of the Certificate for the purpose of adding any provisions to, or changing in any manner or eliminating any of the provisions of, the Certificate or of any supplement thereto, or modifying or amending the rights and obligations of the Department thereunder, or modifying in any manner the rights of the Holders of the Bonds; provided, however, that, without the specific consent of the Holder of each Bond which would be affected thereby, whether or not such Bond shall then be deemed to be Outstanding under the Certificate, no such instrument or certificate amending or supplementing the provisions of the Certificate shall: (1) extend the fixed maturity date for the payment of the principal of any Bond, or reduce the principal amount of any Bond, or reduce the rate or extend the time of payment of interest thereon, or reduce any premium payable upon the redemption or prepayment thereof, or advance the date upon which any Bond may first be called for redemption prior to its fixed maturity date; (2) reduce the aforesaid percentage of Bonds, the Holders of which are required to consent to any such instrument or certificate amending or supplementing the provisions of the Certificate; (3) give to any Bond or Bonds, whether Series 1997 Bonds, Additional Bonds or Refunding Bonds, any preference over any other Bond or Bonds secured by the Certificate; (4) authorize the creation of any pledge of the Revenues or any lien or charge thereon prior or superior to or on a parity with the pledge of and lien and charge thereon created in the Certificate for the payment of the Bonds except to the extent provided in Article II of the Certificate; or (5) deprive any Holder of the Bonds of the pledge and lien created by the Certificate, and provided, further, that if moneys or Federal Securities shall have been deposited in accordance with the provisions of the Certificate relating to the defeasance for the payment of particular Bonds and such Bonds shall not in fact have been paid, no amendments or supplements to the provisions of Article XII of the Certificate shall be made without the specific consent of the Holder of each Bond which would be affected thereby. A modification or amendment of the provisions of Article V of the Certificate with respect to the 1997 Certificate Harbor Revenue Special Fund or the 1997 Certificate Harbor Interest Account, 1997 Certificate Harbor Principal Account, 1997 Certificate Harbor Debt Service Reserve Account or 1997 Certificate Harbor Reserve and Contingency Account shall not be deemed a change in the terms of payment of the Bonds; provided, however, that no such modification or amendment shall, except upon the consent of the Holders of all Bonds then Outstanding affected thereby, reduce the amount or amounts required to be deposited in the 1997 Certificate Harbor Revenue Special Fund for credit to the 1997 Certificate Harbor Interest Account, 1997 Certificate Harbor Principal Account or 1997 Certificate Harbor Debt Service Reserve Account therein. (Nothing contained in the Certificate, however, shall be construed as making necessary the approval by the Holders of the Bonds of the adoption of any amending or supplementing certificate authorized by the Certificate.)

The proof of the giving of any consent required and of the holding of Bonds for the purposes of giving consent shall be made in accordance with the provisions of Section 9.01 of the Certificate, and it shall not be necessary that the consents of the Holders of the Bonds approve the particular form of wording of the proposed amendment or supplement, but it shall be sufficient if such consent approve the substance thereof. After the Holders of the required percentage of Bonds shall have filed their consents to the amendment or supplement of the Certificate, the Department shall mail, or shall cause the Registrar to mail, a copy of such notice, postage prepaid, to each Holder of Bonds then Outstanding, at his address appearing upon the Bond Register, but failure to mail copies of said notice to any Holder shall not affect the validity of such instrument or Supplemental Certificate or the consents thereto. A record, consisting of the required papers, shall be proof of the matters therein stated until the contrary is proved, and no action or proceeding to set aside or invalidate such instrument or Supplemental Certificate or any proceedings for its adoption shall be instituted or maintained unless such action or proceeding for such purpose is commenced within 60 days after the mailing of the required notice.

Bonds delivered after the effective date of any action taken as provided above may bear a notation, by endorsement or otherwise, in form approved by the Department, as to such action, and in that case upon demand of the Holder of any Bond Outstanding at such effective date and presentation of his Bond for the purpose at the office of the Director of Finance or other Paying Agent, transfer agent or Registrar for such Bond under the Certificate and at such additional offices as the Director of Finance may select and designate for that purpose, a suitable notation shall be made on such Bond. If the Department shall so determine, new Bonds so modified as in the opinion of the Department to conform to the amendments or supplements so consented to by the Bondholders shall be prepared, executed and delivered, and upon demand of the Holder of any Bond then Outstanding, his Bond shall be exchanged without cost to such Bondholder, for a new Bond, upon surrender of such Outstanding Bonds.

Events of Default; Remedies. (Certificate – Sections 11.01 to 11.06.)

Events of Defaults. The following shall constitute "Events of Default":

a. if payment of the interest on, or principal (including any Sinking Fund Installment) or premium (if any) of any Bond, whether at maturity or by proceedings for redemption, by declaration or otherwise, shall not be made after the same shall become due and payable; or

b. unless all the Bonds then Outstanding shall have been called for retirement or for redemption, if the Undertaking or any building or facility constituting a part thereof shall be destroyed or damaged so as to reduce the revenues, fees and earnings derived from the Undertaking below the amount required by the Rate Covenant to be produced and maintained and the Department does not, to the extent of the proceeds of insurance or self-insurance and the moneys on deposit in the 1997 Certificate Harbor Revenue Special Fund on credit to the 1997 Certificate Harbor Reserve and Contingency Account available therefor, promptly repair or reconstruct such destroyed or damaged building or facility, or promptly erect or substitute in place of the building or facility destroyed or damaged other buildings and facilities which produce revenues and fees comparable to those produced by the building or facility destroyed or damaged and subject to the lien of the Certificate and deposit in the 1997 Certificate Harbor Revenue Special Fund an amount of the revenues and fees to be derived therefrom comparable to those theretofore derived from the building or facility destroyed or damaged, which amounts so deposited shall constitute Revenues, to be used and applied as are all other Revenues, provided that nothing in this clause shall be deemed to require the repairing, reconstruction or replacement of any building or facility which at the time of such destruction or damage was unserviceable, inadequate, obsolete, worn-out or unfit to be used or no longer required for use in connection with the security and payment of the Bonds; or

c. if the Department shall default in the due and punctual performance of any of the covenants, conditions, agreements and provisions contained in the Bonds or in the Certificate or in any Supplemental Certificate on the part of the Department to be performed, and such default shall continue for 90 days after written notice specifying such default and requiring the same to be remedied shall have been given to the Department by the Holders of not less than 50% in principal amount of the Bonds then

Outstanding, or any trustee or committee therefor; provided, however, that if such failure shall be such that it cannot be corrected within such 90-day period, it shall not constitute an Event of Default if corrective action is instituted within such period and diligently pursued until the failure is corrected; or

d. if the Capital Improvement Bonds or the 1990 Certificate Harbor Revenue Bonds shall have been declared due and payable pursuant to an acceleration resulting from an event of default under the Capital Improvement Certificate or the 1990 Certificate, respectively, as in force on the date of effectiveness of the Certificate; or

e. if any proceedings shall be instituted, with the consent or acquiescence of the State, for the purpose of effecting a composition between the State and its creditors and if the claim of such creditors is in any circumstance payable from any of the Revenues or any other moneys pledged and charged in the Certificate or in any Supplemental Certificate, or for the purpose of adjusting the claims of such creditors, pursuant to any federal or State statute as of date of the Certificate or thereafter enacted; or

f. if an order or decree shall be entered (1) with the consent or acquiescence of the State, appointing a receiver or receivers of the Undertaking or any of the buildings and facilities thereof, (2) with or without the consent or acquiescence of the State, appointing a receiver or receivers of the Undertaking or any of the buildings or facilities thereof if such receiver or receivers are appointed pursuant to the provisions of the Capital Improvement Certificate or the 1990 Certificate, or (3) without the consent or acquiescence of the State, appointing a receiver or receivers of the Undertaking or any of the buildings and facilities thereof and such order or decree having been entered, shall not be vacated or discharged or stayed on appeal within 60 days after the entry thereof; or

g. if, under the provision of any other law for the relief or aid of debtors, any court of competent jurisdiction shall assume custody or control of the Undertaking or any of the buildings and facilities thereof, and such custody or control shall not be terminated within 90 days from the date of assumption of such custody or control.

Declaration of Principal and Interest as Due. Upon the occurrence and continuation of an Event of Default, then and in each and every case the Holders of not less than 50% in principal amount of the Bonds then Outstanding may, by written notice to the Department filed in the office of the Department and with the Director of Finance, proceed to declare the principal of all Bonds then Outstanding, together with all accrued and unpaid interest thereon and together with all other moneys secured by the Certificate, if not already due, to be due and payable immediately, and upon any such declaration the same shall become and be due and payable immediately, anything in the Certificate, any Supplemental Certificate or in any of the Bonds contained to the contrary notwithstanding, except to the extent otherwise provided in connection with a Support Facility. This provision is subject, however, to the condition that, if at any time after the principal of the Bonds, together with accrued and unpaid interest thereon shall have been so declared due and payable and before any further action has been taken (other than the making of the above declaration), the principal amount of all Bonds which have matured either according to the maturity date or dates specified therein or otherwise (except as a result of such declaration) and all arrears of interest upon all Bonds, except interest accrued but not yet due on said Bonds, shall be paid or caused to be paid, and all other Events of Default, if any, which shall have occurred shall have been remedied, cured or secured, then and in every such case the Holders of a majority in principal amount of the Bonds then Outstanding, by notice in writing delivered to the Department and the Director of Finance, may waive such default and its consequences and rescind such declaration. No such waiver or rescission or annulment shall extend to or affect any subsequent default or impair or exhaust any right or power consequent thereon.

Possession of Undertaking by Bondholders' Committee; Appointment of a Receiver. Upon the occurrence of an Event of Default and the continuation thereof, if no Capital Improvement Bonds and 1990 Certificate Harbor Revenue Bonds are at the time Outstanding or any of such Capital Improvement Bonds and 1990 Certificate Harbor Revenue Bonds being then outstanding, if due and adequate provisions for the payment thereof has theretofore been made, then in each and every case a Bondholders' Committee representing the Holders of not less than a majority of the Bonds at the time Outstanding, as a matter of right against the State, without notice or demand, and without regard to the adequacy of the security for the Bonds, shall, but only if and to the extent then permitted by law, be entitled to take possession and control of the business and properties of the Undertaking. Upon taking such possession, the Bondholders' Committee shall operate and maintain the Undertaking, make any necessary repairs, renewals and replacements in respect thereof, impose and prescribe rates, fees and charges for use of the Undertaking and collect, receive and apply the Revenues.

Upon the occurrence of an Event of Default and the continuation thereof, if no Capital Improvement Bonds and 1990 Certificate Harbor Revenue Bonds are at the time Outstanding or any of such Capital Improvement Bonds and 1990 Certificate Harbor Revenue Bonds being then Outstanding, if due and adequate provision for the payment thereof has theretofore been made, then in each and every case the Holders of not less than 50% in the principal amount of the Bonds then Outstanding or any trustee therefor shall be entitled to the appointment of a receiver by any court of competent jurisdiction. Any such receiver may be appointed upon the application of Holders of Bonds of said aggregate principal amount, or any trustee therefor, to the Circuit Court of the First Judicial Circuit, which is vested with jurisdiction in such proceedings, or to any other court of competent jurisdiction in the State. Any receiver so appointed may enter and take possession and control of the Undertaking, operate and maintain the same, make any necessary repairs, renewals and replacements, impose and prescribe rates, fees and charges and collect, receive and apply all Revenues thereafter arising therefrom in the same manner as the Department itself might do. No bond shall be required of such receiver.

Bondholders' Committee. Upon the occurrence of an Event of Default and at any time such Event of Default shall be continuing, the Holders of not less than 50% in principal amount of the Bonds then Outstanding may call a meeting of the Holders of Bonds for the purpose of electing a Bondholders' Committee. Such meeting shall be called and proceedings thereat shall be conducted as provided for other meetings of Bondholders pursuant to the Certificate. At such meeting the Holders of not less than a majority of the principal amount of the Bonds then Outstanding must be present in person or by proxy in order to constitute a quorum for the transaction of business, less than a quorum, however, having power to adjourn from time to time without any notice, other than as required by the Certificate. A quorum being present at such meeting, the Bondholders present in person or by proxy may, by the votes cast by the Holders of a majority in principal amount of the Bonds so present in person or by proxy, elect one or more persons who may or may not be Bondholders to the Bondholders' Committee which shall act as trustee for all Bondholders. The Bondholders present in person or by proxy at said meeting, or at any adjourned meeting thereof, shall prescribe the manner in which the successors of the persons elected to the Bondholders' Committee at such Bondholders' meeting shall be elected or appointed, may prescribe rules and regulations governing the exercise by the Bondholders' Committee of the power conferred upon it in the Certificate and may provide for the termination of the existence of the Bondholders' Committee.

Suits at Law or Equity and Mandamus. In case any one or more of the Events of Default shall happen and be continuing, then and in every such case, but subject to the provisions, limitations and conditions contained in the Certificate relating to the amendment thereof, the Holder of any Bond at the time Outstanding shall be entitled, for the equal benefit and protection of all Holders of the Bonds similarly situated, to proceed and protect and enforce the rights vested in such Holder by the Certificate by such appropriate judicial proceeding as such Holder shall deem most effectual to protect and enforce any such right, either by suit in equity or by action of law, whether for the specific performance of any covenant or agreement contained in the Certificate, or in aid of the exercise of any power granted in the Certificate, or to enforce any other legal or equitable right vested in the Holders of Bonds by the Certificate or by law.

Remedies Not Exclusive; Effect of Waiver of Defaults; Effect of Abandonment of Proceedings or Adverse Determination. The Holders from time to time of the Bonds shall be entitled to all the remedies and benefits of the Certificate as is and as shall be provided by law, and nothing therein shall be construed to limit the rights or remedies of any such Holders under any applicable statute that may exist as of date of the Certificate or be enacted thereafter. The remedies shall not be exclusive of any other remedy or remedies, and each and every such remedy shall be cumulative and shall be in addition to every other remedy given under the Certificate, or as of the date of the Certificate or thereafter existing at law or in equity or by statute and may be exercised without exhausting and without regard to any other remedy.

No waiver of any default or breach of duty or contract by any Holder or any Bond shall extend to or affect any subsequent default or breach of duty or contract or shall impair any rights or remedies thereon. No delay or omission of any Holder of a Bond to exercise any right or power accruing upon any default shall impair any such right or power or shall be construed to be a waiver of any such default or acquiescence therein. Every substantive right and remedy conferred upon the Holders of the Bonds may be enforced from time to time and as often as may be deemed expedient. In case any suit, action or proceeding to enforce any right or exercise any remedy shall be brought or taken and then discontinued or abandoned, or shall be determined adversely to the Holders of the Bonds, then and in every such case the State and such Holders shall be restored to their former positions and rights and remedies as if no suit, action or proceeding had been brought or taken.

Discharge of Liens and Pledges; Bonds No Longer Deemed Outstanding Under the Certificate. (Certificate – Section 12.01.) The obligations of the State, including, without limiting the generality of the foregoing, of the Department, under the Certificate and the liens, pledges, charges, trusts, assignments, covenants and agreements of the State, including the Department, therein made or provided for, shall be fully discharged and satisfied as to any Bond and such Bond shall no longer be deemed to be Outstanding under the Certificate:

(A) if such Bond shall have been purchased and canceled by the State or surrendered to the Director of Finance or other Paying Agent, transfer agent or Registrar for cancellation or be subject to cancellation by him or it; or

(B) as to any Bond not theretofore purchased and canceled, surrendered for cancellation or subject to cancellation, when payment of the principal of and the applicable redemption premium, if any, on such Bond, plus interest on such principal (calculated, in the case of Variable Rate Bonds, at the maximum numerical rate permitted by the terms thereof) to the due date thereof (whether such due date be by reason of maturity or upon redemption or prepayment or by declaration as provided in the Certificate, or otherwise) either:

(1) shall have been made or caused to be made when due and payable in accordance with the terms thereof; or

(2) shall have been provided by irrevocably depositing with the Director of Finance or other Paying Agent therefor, in trust solely for such payment, either (i) moneys sufficient to make such payment, (ii) Federal Securities maturing as to principal and interest in such amounts and at such times as will insure the availability of sufficient moneys to make such payment, or (iii) a combination of both moneys and Federal Securities and all necessary and proper fees, compensation and expenses of any Paying Agent, transfer agent or Registrar appointed by the State pertaining to the Bond with respect to which such deposit is made shall have been paid or the payment thereof provided for to the satisfaction of such Paying Agent, transfer agent or Registrar. At such time as a Bond shall be deemed to be no longer Outstanding under the Certificate, as aforesaid, except for the purpose of any such payment from such moneys or Federal Securities, such Bond shall no longer be secured by or entitled to the benefits of the Certificate and shall cease to accrue interest from the due date thereof (whether such due date be by reason of maturity or upon redemption or prepayment or by declaration, or otherwise).

Notwithstanding the foregoing, with respect to Bonds which by their terms may be redeemed or otherwise prepaid prior to the stated maturities thereof and which the State elects to so redeem or prepay, no deposit under clause (2) of subparagraph (B) above shall constitute such discharge and satisfaction as aforesaid until such Bonds shall have matured or shall have been irrevocably called or designated for redemption or prepayment and proper notice of such redemption or prepayment shall have been given or irrevocable provision shall have been made for the giving of such notice, provided that nothing in Article XII of the Certificate shall require or be deemed to require the State to elect to redeem or prepay such Bonds or, in the event the State shall elect to redeem or prepay such Bonds, shall require or be deemed to require the redemption or prepayment as of any particular date or dates.

Any such moneys so deposited with the Director of Finance or other Paying Agents as described above may at the direction of the Department be invested and reinvested in Federal Securities, maturing in the amounts and times as set forth in the Certificate, and all income from all such Federal Securities in the hands of the Director of Finance and other Paying Agents which is not required for the payment of the Bonds and interest and premium, if any, thereon with respect to which such moneys shall have been so deposited, shall, to the extent permitted by law, be deposited in the 1997 Certificate Harbor Revenue Special Fund as and when realized and collected for use and application as are other moneys deposited in such Fund.

Notwithstanding the foregoing, the payment of (i) the purchase price of and interest on Variable Rate Bonds tendered for purchase pursuant to the terms of the Certificate and of a Remarketing Agreement, or similar agreement, or (ii) principal of or interest on any Variable Rate Bonds with a draw, borrowing or payment under a Support Facility shall not be deemed payment of such Variable Rate Bonds pursuant to the defeasance provisions of the Certificate; provided, however, that with respect to (ii) above, a reimbursement or other payment by the State with respect to a draw, borrowing or payment under a Support Facility for the payment of principal, premium, if any, or interest on Variable Rate Bonds when due shall be deemed to the payment of such Variable Rate Bonds for the purpose of such defeasance provisions.

All moneys or Federal Securities set aside and held in trust pursuant to the provisions of Article XII of the Certificate for the payment of Bonds (including interest and premium thereon, if any) shall be applied to and used solely for the payment of the particular Bonds (including interest and premium thereon, if any) with respect to which such moneys and Federal Securities have been so set aside in trust.

If moneys or Federal Securities have been deposited or set aside with the Director of Finance or other Paying Agent for the payment of Bonds and such Bonds shall be deemed to have been paid and be no longer Outstanding under the Certificate, but such Bonds shall not have in fact been actually paid in full, no amendment to the defeasance provisions shall be made without the consent of the Holder of each Bond affected thereby and such Bonds shall be considered to be Outstanding for purposes of the provisions of the Certificate relating to amendments upon consent of Bondholders.

The State may at any time surrender to the Director of Finance for cancellation by him any Bonds previously executed and delivered, which the State may have acquired in any manner whatsoever, and such Bonds upon such surrender for cancellation shall be deemed to be paid and no longer Outstanding under the Certificate.

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APPENDIX D

BOOK-ENTRY ONLY SYSTEM
PROVISIONS FOR BOOK-ENTRY ONLY SYSTEM AND GLOBAL CLEARANCE PROCEDURES

The information set forth in this APPENDIX D is subject to any change in or reinterpretation of the rules, regulations and procedures of DTC, Euroclear or Clearstream (DTC, Euroclear and Clearstream together, the "Clearing Systems") currently in effect. The information in this APPENDIX D concerning the Clearing Systems has been obtained from sources believed to be reliable, but the Issuer does not take any responsibility for the accuracy, completeness or adequacy of the information in this APPENDIX D. Investors wishing to use the facilities of any of the Clearing Systems are advised to confirm the continued applicability of the rules, regulations and procedures of the relevant Clearing System. The Issuer will not have any responsibility or liability for any aspect of the records relating to, or payments made on account of beneficial ownership interests in State of Hawaii Harbor System Revenue Bonds, Series A of 2020 (AMT), Series B of 2020 (Taxable) and Series C of 2020 Non-AMT) (the "Series 2020 Bonds") held through the facilities of any Clearing System or for maintaining, supervising or reviewing any records relating to such beneficial ownership interests.

So long as Cede & Co. is the registered owner of the Series 2020 Bonds, as nominee for DTC, references herein and in the Trust Agreement to the Bondholders, registered owners or owners (or similar terms) of the Series 2020 Bonds shall mean Cede & Co., as aforesaid, and shall not mean the Beneficial Owners of the Series 2020 Bonds.

DTC Book-Entry-Only System

DTC will act as securities depository for the Series 2020 Bonds. The Series 2020 Bonds will be issued as fully-registered securities registered in the name of Cede & Co. (DTC's partnership nominee) or such other name as may be requested by an authorized representative of DTC. One fully-registered Bond will be issued for each maturity of each series of the Series 2020 Bonds, in the aggregate principal amount of such maturity, and will be deposited with DTC.

DTC, the world's largest depository, is a limited-purpose trust company organized under the New York Banking Law, a "banking organization" within the meaning of the New York Banking Law, a member of the Federal Reserve System, a "clearing corporation" within the meaning of the New York Uniform Commercial Code, and a "clearing agency" registered pursuant to the provisions of Section 17A of the Securities Exchange Act of 1934. DTC holds and provides asset servicing for over 3.5 million issues of U.S. and non-U.S. equity issues, corporate and municipal debt issues, and money market instruments (from over 100 countries) that DTC's participants ("Direct Participants") deposit with DTC. DTC also facilitates the post-trade settlement among Direct Participants of sales and other securities transactions in deposited securities, through electronic computerized book-entry transfers and pledges between Direct Participants' accounts. This eliminates the need for physical movement of securities certificates. Direct Participants include both U.S. and non-U.S. securities brokers and dealers, banks, trust companies, clearing corporations, and certain other organizations. DTC is a wholly-owned subsidiary of The Depository Trust & Clearing Corporation ("DTCC"). DTCC is the holding company for DTC, National Securities Clearing Corporation and Fixed Income Clearing Corporation, all of which are registered clearing agencies. DTCC is owned by the users of its regulated subsidiaries. Access to the DTC system is also available to others such as both U.S. and non-U.S. securities brokers and dealers, banks, trust companies, and clearing corporations that clear through or maintain a custodial relationship with a Direct Participant, either directly or indirectly ("Indirect Participants"). DTC has a Standard & Poor's rating of AA+. The DTC Rules applicable to its Participants are on file with the Securities and Exchange Commission. More information about DTC can be found at www.dtcc.com.

Purchases of the Series 2020 Bonds under the DTC system must be made by or through Direct Participants, which will receive a credit for the Series 2020 Bonds on DTC's records. The ownership interest of each actual purchaser of each Series 2020 Bond ("Beneficial Owner") is in turn to be recorded on the Direct and Indirect Participants' records. Beneficial Owners will not receive written confirmation from DTC of their purchase. Beneficial Owners are, however, expected to receive written confirmations providing details of the transaction, as well as periodic statements of their holdings, from the Direct or Indirect Participant through which the Beneficial Owner entered into the transaction. Transfers of ownership interests in the Series 2020 Bonds are to be accomplished by entries made on the books of Direct and Indirect Participants acting on behalf of Beneficial Owners. Beneficial Owners will not receive certificates representing their ownership interest in the Series 2020 Series 2020 Bonds, except in the event that use of the book-entry system for the Bonds is discontinued.

To facilitate subsequent transfers, all Series 2020 Bonds deposited by Direct Participants with DTC are registered in the name of DTC's partnership nominee, Cede & Co., or such other name as may be requested by an authorized representative of DTC. The deposit of Series 2020 Bonds with DTC and their registration in the name of Cede & Co. or such other DTC nominee do not affect any change in beneficial ownership. DTC has no knowledge of the actual Beneficial Owners of the Series 2020 Bonds; DTC's records reflect only the identity of the Direct Participants to whose accounts such Series 2020 Bonds are credited, which may or may not be the Beneficial Owners. The Direct and Indirect Participants will remain responsible for keeping account of their holdings on behalf of their customers.

Conveyance of notices and other communications by DTC to Direct Participants, by Direct Participants to Indirect Participants, and by Direct Participants and Indirect Participants to Beneficial Owners will be governed by arrangements among them, subject to any statutory or regulatory requirements as may be in effect from time to time. Beneficial Owners of the Series 2020 Bonds may wish to take certain steps to augment transmission to them of notices of significant events with respect to the Series 2020 Bonds, such as redemptions, tenders, defaults, and proposed amendments to the security documents. For example, Beneficial Owners of Series 2020 Bonds may wish to ascertain that the nominee holding the Series 2020 Bonds for their benefit has agreed to obtain and transmit notices to Beneficial Owners. In the alternative, Beneficial Owners may wish to provide their names and addresses to the registrar and request that copies of the notices be provided directly to them.

Redemption notices shall be sent to DTC. If less than all of the Series 2020 Bonds within a maturity are being redeemed, DTC's practice is to determine by lot the amount of the interest of each Direct Participant in such maturity to be redeemed.

Neither DTC nor Cede & Co. (nor any other DTC nominee) will consent or vote with respect to the Series 2020 Bonds unless authorized by a Direct Participant in accordance with DTC's Procedures. Under its usual procedures, DTC mails an Omnibus Proxy to the Issuer as soon as possible after the record date. The Omnibus Proxy assigns Cede & Co.'s consenting or voting rights to those Direct Participants to whose accounts the Series 2020 Bonds are credited on the record date (identified in a listing attached to the Omnibus Proxy).

Principal and interest payments on the Series 2020 Bonds will be made to Cede & Co., or such other nominee as may be requested by an authorized representative of DTC. DTC's practice is to credit Direct Participant's accounts upon DTC's receipt of funds and corresponding detail information from the Issuer or Trustee, on the payable date in accordance with their respective holdings shown on DTC's records. Payments by Participants to Beneficial Owners will be governed by standing instructions and customary practices, as is the case with securities held for the accounts of customers in bearer form or registered in "street name," and will be the responsibility of such Participant and not of DTC, the Trustee, or the Issuer, subject to any statutory or regulatory requirements as may be in effect from time to time. Payment of principal and interest to Cede & Co. (or such other nominee as may be requested by an authorized representative of DTC) is the responsibility of the Trustee, disbursement of such payments to Direct Participants will be the responsibility of DTC, and disbursement of such payments to the Beneficial Owners will be the responsibility of Direct and Indirect Participants.

DTC may discontinue providing its services as depository with respect to the Series 2020 Bonds at any time by giving reasonable notice to the Issuer or the Trustee. Under such circumstances, in the event that a successor securities depository is not obtained, Bond certificates are required to be printed and delivered.

The Issuer may decide to discontinue use of the system of book-entry transfers through DTC (or a successor securities depository). In that event, Bond certificates will be printed and delivered.

NEITHER THE ISSUER NOR THE TRUSTEE WILL HAVE ANY RESPONSIBILITY OR OBLIGATION TO DTC PARTICIPANTS, INDIRECT PARTICIPANTS OR THE PERSONS FOR WHICH THEY ACT AS NOMINEES WITH RESPECT TO THE SERIES 2020 BONDS, OR FOR ANY PRINCIPAL OF OR INTEREST PAYMENT THEREON.

The Issuer and the Trustee may treat DTC (or its nominee) as the sole and exclusive registered owner of the Series 2020 Bonds registered in its name for the purposes of payment of the principal of, or interest on, the Series 2020 Bonds, giving any notice permitted or required to be given to registered owners under the Trust Agreement, registering the transfer of the Series 2020 Bonds, or other action to be taken by registered owners and for all other purposes whatsoever. The Issuer and the Trustee shall not have any responsibility or obligation to any Direct or Indirect Participant, any person claiming a beneficial ownership interest in the Series 2020 Bonds under or through DTC or any Direct or Indirect Participant, or any other person which is not shown on the registration books of the Issuer (kept by the Trustee) as being a registered owner, with respect to the accuracy of any records maintained by DTC or any Direct or Indirect Participant; the payment by DTC or any Direct or Indirect Participant of any amount in respect of the principal of or interest on the Series 2020 Bonds; any notice which is permitted or required to be given to registered owners thereunder or under the conditions to transfers or exchanges adopted by the Issuer; or other action taken by DTC as registered owner.

Global Clearance Procedures

Beneficial interests in the Series 2020 Bonds may be held through DTC, Clearstream Banking, S.A. ("Clearstream") or Euroclear Bank SA/NV ("Euroclear") as operator of the Euroclear System, directly as a participant or indirectly through organizations that are participants in such system.

Euroclear and Clearstream. Euroclear and Clearstream each hold securities for their customers and facilitate the clearance and settlement of securities transactions by electronic book-entry transfer between their respective account holders. Euroclear and Clearstream provide various services including safekeeping, administration, clearance and settlement of internationally traded securities and securities lending and borrowing. Euroclear and Clearstream also deal with domestic securities markets in several countries through established depositary and custodial relationships. Euroclear and Clearstream have established an electronic bridge between their two systems across which their respective participants may settle trades with each other.

Euroclear and Clearstream customers are worldwide financial institutions, including underwriters, securities brokers and dealers, banks, trust companies and clearing corporations. Indirect access to Euroclear and Clearstream is available to other institutions that clear through or maintain a custodial relationship with an account holder of either system, either directly or indirectly.

Clearing and Settlement Procedures. The Series 2020 Bonds sold in offshore transactions will be initially issued to investors through the book-entry facilities of DTC, or Clearstream and Euroclear in Europe if the investors are participants in those systems, or indirectly through organizations that are participants in the systems. For any of such Series 2020 Bonds, the record holder will be DTC's nominee. Clearstream and Euroclear will hold omnibus positions on behalf of their participants through customers' securities accounts in Clearstream's and Euroclear's names on the books of their respective depositories.

The depositories, in turn, will hold positions in customers' securities accounts in the depositories' names on the books of DTC. Because of time zone differences, the securities account of a Clearstream or Euroclear participant as a result of a transaction with a participant, other than a depository holding on behalf of Clearstream or Euroclear, will be credited during the securities settlement processing day, which must be a business day for Clearstream or Euroclear, as the case may be, immediately following the DTC settlement date. These credits or any transactions in the securities settled during the processing will be reported to the relevant Euroclear participant or Clearstream participant on that business day. Cash received in Clearstream or Euroclear as a result of sales of securities by or through a Clearstream participant or Euroclear participant to a DTC Participant, other than the depository for Clearstream or Euroclear, will be received with value on the DTC settlement date but will be available in the relevant Clearstream or Euroclear cash account only as of the business day following settlement in DTC.

Transfer Procedures. Transfers between participants will occur in accordance with DTC rules. Transfers between Clearstream participants or Euroclear participants will occur in accordance with their respective rules and operating procedures. Cross-market transfers between persons holding directly or indirectly through DTC, on the one hand, and directly or indirectly through Clearstream participants or Euroclear participants, on the other, will be effected by DTC in accordance with DTC rules on behalf of the relevant European international clearing system by the relevant depositories; however, cross-market transactions will require delivery of instructions to the relevant European international clearing system by the counterparty in the system in accordance with its rules and procedures and within its established deadlines in European time.

The relevant European international clearing system will, if the transaction meets its settlement requirements, deliver instructions to its depository to take action to effect final settlement on its behalf by delivering or receiving securities in DTC, and making or receiving payment in accordance with normal procedures for same day funds settlement applicable to DTC. Clearstream participants or Euroclear participants may not deliver instructions directly to the depositories.

The Issuer will not impose any fees in respect of holding the Series 2020 Bonds; however, holders of book-entry interests in the Series 2020 Bonds may incur fees normally payable in respect of the maintenance and operation of accounts in DTC, Euroclear and Clearstream.

Initial Settlement. Interests in the Series 2020 Bonds will be in uncertified book-entry form. Purchasers electing to hold book-entry interests in the Series 2020 Bonds through Euroclear and Clearstream accounts will follow the settlement procedures applicable to conventional Eurobonds. Book-entry interests in the Series 2020 Bonds will be credited to Euroclear and Clearstream participants' securities clearance accounts on the business day following the date of delivery of the Series 2020B Bonds against payment (value as on the date of delivery of the Series 2020 Bonds). DTC participants acting on behalf of purchasers electing to hold book-entry interests in the Series 2020 Bonds through DTC will follow the delivery practices applicable to securities eligible for DTC's Same Day Funds Settlement system. DTC participants' securities accounts will be credited with book-entry interests in the Series 2020 Bonds following confirmation of receipt of payment to the Issuer on the date of delivery of the Series 2020 Bonds.

Secondary Market Trading. Secondary market trades in the Series 2020 Bonds will be settled by transfer of title to book-entry interests in Euroclear, Clearstream or DTC, as the case may be. Title to such book-entry interests will pass by registration of the transfer within the records of Euroclear, Clearstream or DTC, as the case may be, in accordance with their respective procedures. Book-entry interests in the 2020 Bonds may be transferred within Euroclear and within Clearstream and between Euroclear and Clearstream in accordance with procedures established for these purposes by Euroclear and Clearstream. Book-entry interests in the Series 2020 Bonds may be transferred within DTC in accordance with procedures established for this purpose by DTC. Transfer of book-entry interests in the Series 2020 Bonds between Euroclear or Clearstream and DTC may be effected in accordance with procedures established for this purpose by Euroclear, Clearstream and DTC.

Special Timing Considerations. Investors should be aware that investors will only be able to make and receive deliveries, payments and other communications involving the Series 2020 Bonds through Euroclear or Clearstream on days when those systems are open for business. In addition, because of time-zone differences, there may be complications with completing transactions involving Clearstream and/or Euroclear on the same business day as in the United States. U.S. investors who wish to transfer their interests in the Series 2020 Bonds, or to receive or make a payment or delivery of the Series 2020 Bonds, on a particular day, may find that the transactions will not be performed until the next business day in Luxembourg if Clearstream is used, or Brussels if Euroclear is used.

Clearing Information. It is expected that the Series 2020 Bonds will be accepted for clearance through the facilities of Euroclear and Clearstream. The CUSIP numbers for the Series 2020 Bonds are set forth on the inside cover of the Official Statement.

General. Neither Euroclear nor Clearstream is under any obligation to perform or continue to perform the procedures referred to above, and such procedures may be discontinued at any time.

NEITHER THE ISSUER NOR THE UNDERWRITERS WILL HAVE ANY RESPONSIBILITY FOR THE PERFORMANCE BY EUROCLEAR OR CLEARSTREAM OR THEIR RESPECTIVE DIRECT OR INDIRECT PARTICIPANTS OR ACCOUNT HOLDERS OF THEIR RESPECTIVE OBLIGATIONS UNDER THE RULES AND PROCEDURES GOVERNING THEIR OPERATIONS OR THE ARRANGEMENTS REFERRED TO ABOVE.

APPENDIX E

FORM OF OPINION OF BOND COUNSEL

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December 2, 2020

Jade T. Butay
Director of Transportation
Department of Transportation
State of Hawaii
869 Punchbowl Street
Honolulu, Hawaii 96813

$147,520,000	**$15,685,000**	**$103,345,000**
State of Hawaii Harbor System Revenue Bonds Series A of 2020 (AMT)	**State of Hawaii Harbor System Revenue Bonds Taxable Series B of 2020**	**State of Hawaii Harbor System Revenue Bonds Series C of 2020 (Non-AMT)**

Dear Mr. Butay:

At the request of the State of Hawaii (the "State"), we have acted as Bond Counsel in connection with the issuance and sale by the State of its $147,520,000 aggregate principal amount of State of Hawaii Harbor System Revenue Bonds, Series A of 2020 (AMT) (the "Series 2020A Bonds"), $15,685,000 aggregate principal amount of State of Hawaii Harbor System Revenue Bonds, Taxable Series B of 2020 (the "Series 2020B Bonds") and $103,345,000 aggregate principal amount of State of Hawaii Harbor System Revenue Bonds, Series C of 2020 (Non-AMT) (the "Series 2020C Bonds" and, together with the Series 2020A Bonds, the "Tax-Exempt Bonds", and the Tax-Exempt Bonds together with the Series 2020B Bonds, the "Bonds").

The Bonds are dated December 2, 2020, are in the denomination of $5,000 or any integral multiple thereof, and mature serially on July 1 in each of the years and in the respective principal amounts set forth below, with the Bonds maturing in a particular year bearing interest payable semiannually each January 1 and July 1, commencing July 1, 2021 at the rate per annum set opposite such year, as follows:

Series 2020A Bonds

Maturity Date (July 1)	Principal Amount ($)	Interest Rate (%)
2021	2,430,000	5.000
2024	4,355,000	5.000
2025	5,590,000	5.000
2026	5,870,000	5.000
2027	6,165,000	5.000
2028	10,330,000	5.000
2029	4,915,000	5.000
2030	5,555,000	5.000
2031	12,920,000	4.000
2032	13,445,000	4.000
2033	13,995,000	4.000
2034	14,575,000	4.000
2035	15,165,000	4.000
2036	15,785,000	4.000
2037	16,425,000	4.000

Series 2020B Bonds

Maturity Date (July 1)	Principal Amount ($)	Interest Rate (%)
2021	3,530,000	0.600
2022	6,685,000	0.700
2023	4,505,000	0.900
2024	965,000	1.150

Series 2020C Bonds

Maturity Date (July 1)	Principal Amount ($)	Interest Rate (%)
2029	5,940,000	5.000
2030	7,160,000	5.000
2031	7,490,000	4.000
2032	7,800,000	4.000
2033	8,115,000	4.000
2034	8,440,000	4.000
2035	8,785,000	4.000
2036	9,145,000	4.000
2037	9,520,000	4.000
2038	9,905,000	4.000
2039	10,315,000	4.000
2040	10,730,000	4.000

The Bonds are being issued (i), to reimburse the State for certain expenditures paid for Capital Improvement Projects listed in its declaration of official intent dated October 17, 2017, pursuant to the extent and within the deadlines of Treasury Regulations Sections 1.142-4 and 1.150-2 for the design and construction of the following Improvements to the Harbor System: land-side improvements for the Kapalama Container Terminal, piers and wharves abutting and adjacent to the Kapalama Container Terminal located at Honolulu Harbor, Fuel Pier Improvements at Kalaeloa Harbor, new Piers and Wharf Facilities to possibly include Piers 8, 9 and 10 at Kalaeloa Harbor, and Container Yards at Kahului Harbor; for the purchase of various land parcels located in the Kahului Harbor area and adjacent to Pier 1 Hilo Harbor, and to finance certain other capital improvements to the Harbor System operated by the Department of Transportation of the State, Harbors Division (the "Department") (ii) to refund certain outstanding State of Hawaii Harbor System Revenue Bonds, Series A of 2010 (Non-AMT) and State of Hawaii Harbor System Revenue Bonds, Series B of 2010 (AMT), (iii) to fund a deposit into the Series 2020 Debt Service Reserve Subaccount of the 1997 Certificate Harbor Debt Service Reserve Account, and (iv) to provide for the costs of issuance of the Bonds. The Bonds recite that they are authorized to be issued and are issued under, pursuant to, and in full compliance with the Constitution and statutes of the State, including particularly, Part III of Chapter 39, Hawaii Revised Statutes, as amended, and under and pursuant to that certain Certificate of the Director of Transportation Providing for the Issuance of State of Hawaii Harbor System Revenue Bonds, dated as of March 1, 1997 (the "Certificate"), duly authorized and delivered under the aforesaid Part III, and pursuant to that certain Tenth Supplemental Certificate of the Director of Transportation Providing for the Issuance of State of Hawaii Harbor System Revenue Bonds, Series A of 2020 (AMT), Taxable Series B of 2020 and Series C of 2020 (Non-AMT), dated as of December 2, 2020 (the "Tenth Supplemental Certificate" and the Certificate as supplemented and amended by the Tenth Supplemental Certificate, the "Certificate as supplemented and amended"), duly authorized and delivered under the aforesaid Part III and the Certificate as supplemented and amended. All capitalized terms used herein that are not herein otherwise defined shall have the meanings ascribed thereto in the Certificate as supplemented and amended. The Bonds are subject to redemption by the State prior to the respective stated maturities thereof as set forth in the Certificate as supplemented and amended. The Bonds are transferable and exchangeable upon the terms and conditions set forth therein and recite that they have been authorized and issued pursuant to the laws of the State.

The Bonds and any bonds heretofore or hereafter issued on a parity therewith under the Certificate are payable from the Revenues of the Undertaking net of the payment of the operation and maintenance expenses of the Undertaking.

The Internal Revenue Code (the "Code") contains certain requirements that must be satisfied from and after the date hereof in order to preserve the exclusion from gross income for federal income tax purposes of interest on the Tax-Exempt Bonds. These requirements relate to, among other things, the use and investment of the proceeds of the Tax-Exempt Bonds, the periodic payment of certain amounts to the United States of America, and the use and tax ownership of any property financed or refinanced with proceeds of the Tax-Exempt Bonds. In the Tax Compliance Certificate dated as of December 2, 2020 (the "Tax Certificate"), the Department has made certain certifications and representations and made certain covenants with respect to the Tax-Exempt Bonds in order to comply with these requirements. Without independent investigation on our part, our opinions expressly assume and rely upon as being true, correct and complete, the certifications and representations set forth in the Tax Certificate.

In rendering our opinions set forth herein, we have also assumed the genuineness of all documents and signatures presented to us (whether as originals or as copies) and the due and legal execution and delivery thereof by, and validity against, any parties other than the State. We have assumed, without undertaking to verify, the accuracy of the factual matters represented, warranted or certified in the documents, and of the legal conclusions contained in the opinions, if any, referred to above. Furthermore, we have assumed compliance with all covenants and agreements contained in the Certificate and the Tax Certificate, including (without limitation) covenants and agreements compliance with which is necessary to ensure that future actions, omissions or events will not cause interest on the Tax-Exempt Bonds to be included in gross income for federal income tax purposes under the Code.

The rights and obligations under the Bonds, the Certificate as supplemented and amended and the Tax Certificate and their enforceability may be subject to bankruptcy, insolvency, reorganization, arrangement, fraudulent conveyance, moratorium and other laws relating to or affecting creditors' rights, to the application of equitable principles, to the exercise of judicial discretion in appropriate cases and to the limitations on legal remedies against the State. We express no opinion with respect to any indemnification, contribution, penalty, choice of law, choice of forum or waiver provisions contained in the foregoing documents. Finally, we undertake no responsibility for the accuracy, completeness or fairness of the Official Statement dated November 19, 2020 relating to the Bonds or other offering material relating to the Bonds and express no opinion with respect thereto.

Based on and subject to the foregoing and existing law and in reliance thereon, as of the date hereof, we are of the following opinions:

(1) The Bonds have been duly authorized and issued in accordance with the Constitution and laws of the State and constitute valid and binding special obligations of the State payable solely from and secured solely by a valid lien upon and pledge of Net Revenues, on a parity with all bonds which heretofore have been or hereafter may be issued under the Certificate, as set forth in the Certificate;

(2) The provisions of the Certificate and the Tenth Supplemental Certificate are valid, binding and enforceable in accordance with their terms;

(3) Interest on the Series 2020A Bonds is excludable from the gross income of the owners thereof pursuant to Code Section 103(a), except for any period during which any Series 2020A Bond is held by a person who is a substantial user of the financed facilities or by a related person (as defined in Code Section 147(a)), and such interest is an item of tax preference in calculating the alternative minimum tax under the Code.

(4) Interest on the Series 2020C Bonds is excludable from the gross income of the owners thereof pursuant to Code Section 103(a), except for any period during which any Series 2020C Bond is held by a person who is a substantial user of the financed

facilities or by a related person (as defined in Code Section 147(a)), and such interest is not an item of tax preference in calculating the alternative minimum tax under the Code.

(5) Interest on the Bonds is exempt from all taxation by the State and any county or any political subdivision thereof, except inheritance, transfer and estate taxes and except to the extent the franchise tax imposed by the laws of the State on banks and other financial institutions may be measured with respect to the Bonds or income therefrom.

Interest on the Series 2020B Bonds is not exempt from federal income taxes.

Certain agreements, requirements and procedures contained or referred to in the Certificate as supplemented and amended, the Tax Certificate and other relevant documents may be changed and certain actions (including, without limitation, the defeasance of the Bonds) may be taken or omitted under the circumstances and subject to the terms and conditions set forth in such documents. No opinion is expressed herein as to the effect on any Bond or the interest thereon if any such change occurs or action is taken or omitted that is not in accordance with the terms and conditions set forth in such documents.

The opinions expressed herein are based on an analysis of existing laws, regulations, rulings and judicial decisions and cover certain matters not directly addressed by such authorities. We have not undertaken to determine, or to inform any person, as to any change in any existing law, regulation, ruling or judicial decision or the effect of any such change. Our engagement with respect to the Bonds has concluded with their issuance, and we disclaim any obligation to update this letter.

Very truly yours,

KATTEN MUCHIN ROSENMAN LLP

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APPENDIX F

FORM OF CONTINUING DISCLOSURE CERTIFICATE

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APPENDIX F

FORM OF CONTINUING DISCLOSURE CERTIFICATE

CONTINUING DISCLOSURE CERTIFICATE

Dated December 2, 2020

STATE OF HAWAII
Harbor System Revenue Bonds

\$147,520,000 **Series A of 2020** **(AMT)**	**\$15,685,000** **Taxable Series B of 2020**	**\$103,345,000** **Series C of 2020** **(Non-AMT)**

This Continuing Disclosure Certificate (this "Disclosure Certificate") is provided in connection with the issuance by the State of Hawaii (the "State"), acting by and through the Director of the Department of Transportation (the "Department"), of \$147,520,000 State of Hawaii Harbor System Revenue Bonds, Series A of 2020 (AMT), \$15,685,000 State of Hawaii Harbor System Revenue Bonds, Taxable Series B of 2020 and \$103,345,000 State of Hawaii Harbor System Revenue Bonds, Series C of 2020 (Non-AMT) (collectively, the "Series 2020 Bonds"). The Series 2020 Bonds are being issued pursuant to the authority of the Constitution and laws of the State, including, in particular, certain acts of the Legislature of the State and that certain Certificate of the Director of Transportation Providing for the Issuance of the State of Hawaii, Harbor System Revenue Bonds dated as of March 1, 1997, as amended and supplemented (the "Bond Certificate"). The State covenants and agrees as follows:

Section 1. Purpose of Disclosure Certificate. This Disclosure Certificate is being executed and delivered on behalf of the State for the benefit of the Holders and Beneficial Owners of the Bonds and in order to assist the Participating Underwriters in complying with Securities and Exchange Commission Rule 15c2-12(b)(5).

Section 2. Definitions. In addition to the definitions set forth in the Bond Certificate, which apply to any capitalized term used in this Disclosure Certificate unless otherwise defined in this Section, the following capitalized terms shall have the following meanings:

"*Annual Report*" shall mean any Annual Report provided by the State pursuant to, and as described in, Sections 3 and 4 of this Disclosure Certificate.

"*Beneficial Owner*" shall mean any person which (a) has the power, directly or indirectly, to vote or consent with respect to, or to dispose of ownership of, any Bonds (including persons holding Bonds through nominees, depositories or other intermediaries) or (b) is treated as the owner of any Bonds for federal income tax purposes.

"*Dissemination Agent*" shall mean the Department's Harbors Division or any successor Dissemination Agent designated in writing by the Department and which has filed with the State a written acceptance of such designation.

"*Financial Obligation*" means, for purposes of the Listed Events set out in Section 5(a)(xv) and Section (5)(a)(xvi), a (i) debt obligation; (ii) derivative instrument entered into in connection with, or pledged as security or a source of payment for, an existing or planned debt obligation; or (iii) guarantee of (i) or (ii). The term "Financial Obligation" shall not include municipal securities (as defined in the Securities Exchange Act of 1934, as amended) as to which a final official statement (as defined in the Rule) has been provided to the MSRB consistent with the Rule.

"*Holder*" shall mean the person in whose name any Bond shall be registered.

"*Listed Events*" shall mean any of the events listed in subsection 5(a) of this Disclosure Certificate.

"MSRB" shall mean the Municipal Securities Rulemaking Board or any other entity designated or authorized by the Securities and Exchange Commission to receive reports pursuant to the Rule. Until otherwise designated by the MSRB or the Securities and Exchange Commission, filings with the MSRB are to be made through the Electronic Municipal Market Access ("EMMA") website of the MSRB, currently located at http://emma.msrb.org.

"*Participating Underwriters*" shall mean any original underwriters of the Bonds required to comply with the Rule in connection with offering of the Bonds.

"*Rule*" shall mean Rule 15c2-12(b)(5) adopted by the Securities and Exchange Commission under the Securities Exchange Act of 1934, as the same may be amended from time to time.

Section 3. Provision of Annual Reports. (a) The Department shall, or shall cause the Dissemination Agent to, not later than nine months after the end of the Department's Fiscal Year (presently June 30), commencing with the report for the Fiscal Year ending June 30, 2020, provide to the MSRB an Annual Report which is consistent with the requirements of Section 4 of this Disclosure Certificate. The Annual Report may cross-reference other information as provided in Section 4 of this Disclosure Certificate; provided that the audited financial statements of the Department may be submitted separately from the balance of the Annual Report and later than the date required above for the filing of the Annual Report if they are not available by that date. If the Department's Fiscal Year changes, it shall give notice of such change in the same manner as for a Listed Event under Section 5(d). The Annual Report shall be submitted on a standard form in use by industry participants or other appropriate form and shall identify the Bonds by name and CUSIP number.

(b) Not later than fifteen (15) business days prior to the date set forth in subsection (a) above, the Department shall provide the Annual Report to the Dissemination Agent. If the Department is unable to provide to the MSRB an Annual Report by the date required in subsection (a) above, the Department shall send or cause to be sent, in a timely manner, a notice to the MSRB in substantially the form attached as Exhibit A.

Section 4. Contents of Annual Reports. The Department's Annual Report shall contain or include by reference information of the type included in the final Official Statement (the "Official Statement") dated November 19, 2020, relating to the Bonds, as set forth under the following headings or in the following tables or appendices: "SOURCES OF REVENUES – Services Revenues, Rentals Income, Other Operating Revenues and Interest Income," "THE HARBOR SYSTEM – Annual Trends in Cargo Traffic for Hawaii Harbors, Annual Trends in Cargo Volume for Hawaii Harbors, Statement of Historical Operations and Debt Service Coverage", and APPENDIX A – AUDITED FINANCIAL STATEMENTS".

The audited financial statements of the Department for the prior Fiscal Year shall be prepared in accordance with generally accepted accounting principles as promulgated to apply to governmental entities from time to time by the Governmental Accounting Standards Board. If the Department's audited financial statements are not available by the time the Annual Report is required to be filed pursuant to subsection 3(a), the Annual Report shall contain unaudited financial statements in a format similar to the financial statements contained in the final Official Statement, and the audited financial statements shall be filed in the same manner as the Annual Report when they become available.

Any or all of the items listed above may be set forth in one or a set of documents or may be included by specific reference to other documents, including official statements of debt issues of the Department or related public entities, which have been made available to the public on the MSRB's website. The Department shall clearly identify each such other document so included by reference.

If the inclusion or format of the information referenced above is changed in any future official statement, thereafter the Annual Report shall instead contain or include by reference information of the type included in that official statement as so changed or, if different, the type of equivalent information included in the Department's most recent official statement.

Section 5. Reporting of Significant Events. (a) The Department shall give, or cause to be given, notice of the occurrence of any of the following events with respect to the Bonds in a timely manner not later than ten (10) New York business days after the occurrence of the event:

i. Principal and interest payment delinquencies;

ii. Non-payment related defaults, if material;

iii. Unscheduled draws on debt service reserves reflecting financial difficulties;

iv. Unscheduled draws on credit enhancements reflecting financial difficulties;

v. Substitution of credit or liquidity providers, or their failure to perform;

vi. Adverse tax opinions, the issuance by the Internal Revenue Service of proposed or final determination of taxability. Notices of Proposed Issue (IRS Form 5701 TEB) or other material notices or determinations with respect to the tax status of the Bonds, or other material events affecting the tax status of the Bonds;

vii. Modifications to rights of Bondholders, if material;

viii. Optional or unscheduled Bond calls, if material, and tender offers;

ix. Defeasances;

x. Release, substitution, or sale of property securing repayment of the Bonds, if material;

xi. Rating changes;

xii. Bankruptcy, insolvency, receivership or similar event of the Department; or

xiii. The consummation of a merger, consolidation, or acquisition involving the Department or the sale of all or substantially all of the assets of the Department, other than in the ordinary course of business, the entry into a definitive agreement to undertake such an action or the termination of a definitive agreement relating to any such actions, other than pursuant to its terms, if material;

xiv. Appointment of a successor or additional trustee or the change of name of a trustee, if material;

xv. Incurrence of a Financial Obligation of the Department, if material, or agreement to covenants, events of default, remedies, priority rights, or other similar terms of a Financial Obligation of the Department, any of which affect Bond holders, if material.

xvi. Default, event of acceleration, termination event, modification of terms, or other similar events under the terms of a Financial Obligation of the Department, any of which reflect financial difficulties.

For the purposes of the event identified in subparagraph (xii), the event is considered to occur when any of the following occur: the appointment of a receiver, fiscal agent or similar officer for an obligated person in a proceeding under the U.S. Bankruptcy Code or in any other proceeding under state or federal law in which a court or governmental authority has assumed jurisdiction over substantially all of the assets or business of the obligated person, or if such jurisdiction has been assumed by leaving the existing governmental body and officials or officers in possession but subject to the supervision and orders of a court or governmental authority, or the entry of an order confirming a plan of reorganization, arrangement or liquidation by a court or governmental authority having supervision or jurisdiction over substantially all of the assets or business of the obligated person.

(b) The Department shall give, or cause to be given, notice of a failure to provide the annual financial information on or before the date specified in Section 3, as provided in Section 3.

(c) Whenever the Department obtains knowledge of the occurrence of a Listed Event described in Section 5(a), the Department shall determine where relevant if such event would be material under applicable federal securities laws.

(d) If the Department learns of the occurrence of a Listed Event described in Section 5(a), or determines where relevant pursuant to Section 5(a) that knowledge of a Listed Event described in Section 5(a) would be material under applicable federal securities laws, the Department shall within ten business days of occurrence file a notice of such occurrence with the MSRB. Notwithstanding the foregoing, notice of the Listed Event described in subsections (a)(xii) or (a)(ix) need not be given under this subsection any earlier than the notice (if any) of the underlying event is given to Holders of affected Bonds pursuant to the Resolution.

Section 6. Termination of Reporting Obligation. The Department's obligations under this Disclosure Certificate shall terminate upon the legal defeasance or payment in full of all of the Bonds. If such termination occurs prior to the final maturity of the Bonds, the Department shall give notice of such termination in a filing with the MSRB.

Section 7. Dissemination Agent. The Department may, from time to time, appoint or engage a Dissemination Agent to assist it in carrying out its obligations under this Disclosure Certificate, and may discharge any such Dissemination Agent, with or without appointing a successor Dissemination Agent. The Dissemination Agent shall not be responsible in any manner for the content of any notice or report prepared by the Department pursuant to this Disclosure Certificate.

Section 8. Amendment; Waiver. Notwithstanding any other provision of this Disclosure Certificate, the Department may amend this Disclosure Certificate, and any provision of this Disclosure Certificate may be waived, provided that the following conditions are satisfied:

(a) If the amendment or waiver relates to the provisions of subsection 3(a), Section 4 or subsection 5(a), it may only be made in connection with a change in circumstances that arises from a change in legal requirements, change in law, or change in the identity, nature or status of an obligated person with respect to the Bonds, or the type of business conducted;

(b) The undertaking, as amended or taking into account such waiver, would, in the opinion of nationally recognized bond counsel, have complied with the requirements of the Rule at the time of the original issuance of the Bonds, after taking into account any amendments or interpretations of the Rule, as well as any change in circumstances; and

(c) The amendment or waiver either (i) is approved by the Holders of the Bonds in the same manner as provided in the Resolution for amendments to the Resolution with the consent of Holders or (ii) does not materially impair the interests of the Holders or Beneficial Owners of the Bonds, as determined by a party unrelated to the Department (such as a trustee or bond counsel).

In the event of any amendment or Waiver of a provision of this Disclosure Certificate, the Department shall describe such amendment in the next Annual Report, and shall include, as applicable, a narrative explanation of the reason for the amendment or waiver and its impact on the type (or in the case of a change of accounting principles, on the presentation) of financial information or operating data being presented by the Department. In addition, if the amendment relates to the accounting principles to be followed in preparing financial statements, (i) notice of such change shall be given in the same manner as for a Listed Event under subsection 5(c), and (ii) the Annual Report for the year in which the change is made should present a comparison (in narrative form and also, if feasible, in quantitative form) between the financial statements as prepared on the basis of the new accounting principles and those prepared on the basis of the former accounting principles.

Section 9. Additional Information. Nothing in this Disclosure Certificate shall be deemed to prevent the Department from disseminating any other information, using the means of dissemination set forth in this Disclosure Certificate or any other means of communication, or including any other information in any Annual Report or notice of occurrence of a Listed Event or of any other notice required to be filed hereunder, in addition to that which is required by this Disclosure Certificate. If the Department chooses to include any information in any Annual Report or notice of occurrence of a Listed Event in addition to that which is specifically required by this Disclosure Certificate, the Department shall have no obligation under this Disclosure Certificate to update such information or include it in any future Annual Report or notice of occurrence of a Listed Event, or any other event required to be reported.

Section 10. Default. In the event of a failure of the Department to comply with any provision of this Disclosure Certificate, any Holder or Beneficial Owner of the Bonds may take such actions as may be necessary and appropriate, including seeking mandate or specific performance by court order, to cause the Department to comply with its obligations under this Disclosure Certificate. A default under this Disclosure Certificate shall not be deemed an event of default under the Bond Certificate with respect to the Bonds, and the sole remedy under this Disclosure Certificate in the event of any failure of the Department to comply with this Disclosure Certificate shall be an action to compel performance.

Section 11. Beneficiaries. This Disclosure Certificate shall inure solely to the benefit of the Department, the Dissemination Agent, the Participating Underwriters and Holders and Beneficial Owners from time to time of the Bonds and shall create no rights in any other person or entity.

Section 12. Governing Law. This Disclosure Certificate shall be construed and interpreted in accordance with the laws of the State of Hawaii, and any suits and actions arising out of this Disclosure Certificate shall be instituted in a court of competent jurisdiction in the State of Hawaii; provided, however, that to the extent this Disclosure Certificate addresses matters of federal securities laws, including the Rule, this Agreement shall be construed in accordance with such federal securities laws and official interpretations thereof.

STATE OF HAWAII

By: ______________________________

Jade T. Butay
Director of Transportation

EXHIBIT A

FORM OF NOTICE TO THE MUNICIPAL SECURITIES RULEMAKING BOARD OF FAILURE TO FILE ANNUAL REPORT

Name of Issuer:	State of Hawaii, Department of Transportation, Harbors Division
Names of Bond Issues:	Harbor System Revenue Bonds, Series A of 2020 (AMT), Taxable Series B of 2020 and Series C of 2020 (Non-AMT)
Date of Issuance:	December 2, 2020

NOTICE IS HEREBY GIVEN that the State of Hawaii, Department of Transportation, Harbors Division has not provided an Annual Report with respect to the above-named Bonds as required by its Continuing Disclosure Certificate dated December 2, 2020. The Department anticipates that the Annual Report will be filed by _______________.

Dates:

STATE OF HAWAII

By ______________________________

Title ______________________________

MAP OF HONOLULU HARBOR

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STATE OF HAWAII • HARBOR SYSTEM REVENUE BONDS SERIES A OF 2020 (AMT), TAXABLE SERIES B OF 2020 AND SERIES C OF 2020 (NON-AMT)

DEPARTMENT OF TRANSPORTATION

STATE OF HAWAII

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