WATER CONSERVATION AND DROUGHT CONTINGENCY PLAN FOR HARRIS COUNTY WATER CONTROL AND IMPROVEMENT DISTRICT NO. 157

Adopted October 8, 2015 Amended May 9, 2024

Section I Introduction

Harris County Water Control and Improvement District No. 157 (the "District") is located in the northwest portion of Harris County, approximately 25 miles northwest of the City of Houston Central Business District and entirely within the extraterritorial jurisdiction of the City of Houston, Texas. The District is part of the master-planned community of Bridgeland.

Pursuant to Article XVI, Section 59 of the Texas Constitution and Chapters 49 and 51 of the Texas Water Code, as amended, the District is empowered, among other things, to finance, purchase, construct, operate, and maintain all works, improvements, facilities and plants necessary for the supply and distribution of water; the collection, transportation and treatment of wastewater; and the control and diversion of storm water. The District, however, currently plans to provide only major storm drainage and channel improvements necessary to serve the land within the boundaries of the District and to construct and operate certain recreational facilities, including combination detention/amenity lakes and irrigation facilities. The District's non-potable water supply sources described in Section VI hereof are only used to supply the District's irrigation system and to maintain water levels in the District's detention/amenity lakes. Consequently, the District does not have individual users or customers.

The District and Bridgeland Development, LP (the "Developer") have entered into that certain Water Supply Contract, dated May 1, 2013 (the "Contract"). Pursuant to the Contract, the District has purchased surface water supplies, such supplies being available for diversion from Cypress Creek pursuant to water rights held by the Developer, for non-potable purposes including irrigation and maintenance of detention/amenity lake levels.

Pursuant to the Texas Water Code and Section 10.1 of the Contract, the District is required to adopt a water conservation and drought contingency plan. The following is adopted as the standard operating procedures, drought contingency plan, and the water conservation plan for the District (this "Plan"). This Plan shall be effective from and after the date of its adoption and/or amendment.

Section II Public Involvement

Opportunity for the public to provide input into the preparation of this Plan was provided by the District by means of holding a public meeting, for which proper notice was given, to accept input on this Plan.

Section III Public Education

The District will periodically provide or make available to the public information about this Plan, including information about the conditions under which each stage of the drought contingency plan is to be initiated or terminated and the drought response measures to be implemented in each stage. This information will be provided by various methods, as the Board of Directors deems appropriate from time to time.

Section IV Coordination with Regional Water Planning Groups and the Texas Commission on Environmental Quality

The service area of the District is located within the Houston Region H Regional Water Planning Group and the District will provide a copy of this Plan to such regional water planning group within ninety (90) days following its adoption. The service area of the District is also located within the boundaries of the West Harris County Regional Water Authority and the District shall submit this Plan to, or make same available for inspection by, an appropriate representative of such regional water authority within ninety (90) days following its adoption.

To the extent required by 30 TAC §288.30, the District shall submit this Plan to, or make same available for inspection by, the Executive Director of the Texas Commission on Environmental Quality (the "Commission") within ninety (90) days of its adoption, or sooner if required by 30 TAC §288.30. The District shall notify the executive director of the Commission within five (5) business days of the implementation of any stage of this Plan, other than Stage 1. Further, to the extent required by the rules of the Texas Water Development Board, the District shall submit this Plan, or make same available for inspection by, the appropriate representatives of such board within ninety (90) days of its adoption, or sooner if required by such rules.

Section V Authorization

The operating company engaged by the District and charged with the responsibility for operations and maintenance of the District's non-potable irrigation system (the "Operator") is hereby authorized and directed to implement the applicable provisions of this Plan upon determination that such implementation is necessary to protect public health, safety, and welfare. The District's Operator shall have the authority to initiate or terminate drought response measures as described in this Plan.

Section VI Inventory of Facilities

The District has invested in various sources of water supply and related facilities to store water in the District's amenity/detention lakes for aesthetic and recreational purposes, including withdrawal of water from such lakes for use in the District's irrigation system and for

maintenance of certain amenity/detention lakes. The following includes an inventory of the sources of water, irrigation pump stations, and lift pumps owned and operated by the District. An aerial map showing the locations of the facilities described below is attached hereto as Exhibit A.

A. SOURCES OF WATER

1. HCWCID 157 Make Up Well No. 1 (500gpm to Lake at Elev. 140.0)

Address: 18014 ½ House Hahl Road ESID No.: 10089010069001233001

2. HCWCID 157 Make Up Well No. 3 (1,000gpm to Lake at Elev. 142.0)

Address: 12132 ½ Parkside Haven Dr. ESID No.: 10089010069003454701

3. HCWCID 157 Make Up Well No. 4 (500gpm to Lake at Elev. 140.0)

Address: 11802 ½ Bayou Junction Rd., # 2, Cypress, TX 77433

ESID No.: 1008961109090929913498

4. HCWCID 157 Make Up Well No. 5 (500gpm to Lake at Elev. 143.0)

19127 1/2 Bridgeland Creek Parkway, Cypress, TX 77433

ESID No.: 10089010119014223200118

5. <u>Cypress Creek Pump Station</u> (385gpm at low flow to Lake at Elev. 140.0)

Address: 17616 1/2 House & Hahl Rd., Cypress, TX 77433

ESID No.: 1008901020900663660113

6. WWTP Reclaimed Water (variable with WWTP flows to Lake at Elev. 140.0)

Address: Discharge at Oak Meadow Park

7. <u>Storm Water Runoff</u>

Address: N/A; stored in amenity/detention lakes

B. IRRIGATION PUMP STATIONS AND LIFT PUMPS

1. <u>Irrigation Pump Station No. 1</u> (2,000gpm from Lake at Elev. 140.0)

Located at 18010 1/2 House Hahl Road, Cypress, TX 77433

ESID No.: 10089010238166895801

2. Irrigation Pump Station No. 2 (2,700gpm from Lake at Elev. 142.0)

Address: 12130 ½ Parkside Haven Dr., Cypress, TX 77433

ESID No.: 10089010209003448701

3. Irrigation Pump Station No. 3 (4,000gpm from Lake at Elev. 140.0)

Address: 11802 ½ Bayou Junction Rd., # 1, Cypress, TX 77433

ESID No.: 1008901006901086860116

4. <u>Irrigation Pump Station No. 4</u> (this is a shared facility with Harris County Water Control and Improvement District No. 159; 4,200 gpm from Lake at Elev 140.0) Address: 19127 ½ Bridgeland Creek Parkway, Cypress, TX 77433 ESID No.: 1008901011901422320118

5. <u>Bridge Cove Lift Pump</u> (185gpm from Lake at Elev. 140.0 to Lake at Elev. 142.0) Address: 12001 Bridge Cove Dr., Cypress, TX 77433 ESID No.: 10089010069004684301

6. <u>Hidden Pass 6-Inch Cla Val Lake Fill</u> (450gpm from IPS 3 to Lake at Elev. 142.0) Address: Hidden Pass between Bayou Junction and W. Creekside

Section VII Triggering Conditions – Initiation and Termination of Drought Stages

The District's Operator shall monitor the lake levels on a weekly basis and shall determine, in consultation with the firm of professional engineers engaged by the District and duly designated as the District's primary engineering representatives (the "Engineer") and Board of Directors, when conditions warrant initiation or termination of each drought stage set forth below. If a drought stage is initiated, the District's Operator shall monitor the applicable lake levels on a daily basis until the termination of such drought stage. In addition to consulting with the District's Engineer and the President of the District's Board of Directors, the District's Operator shall also notify the representatives of the "Development Team" identified on Exhibit B attached hereto of the initiation or termination of a drought stage.

The triggering criteria described below are based on an analysis performed by the District's Operator and District's Engineer concerning the vulnerability of the District's water sources. The District has five separate amenity/detention lake systems that store water: (1) the lakes with a static water level elevation of 140.0 feet above mean sea level (the "140 Lake System"), and (2) the lakes with a static water level elevation of 142.0 feet above mean sea level (the "142 Lake System"). Reference Exhibit A. Only the 140 Lake System and the 142 Lake System have pump stations that draw water from the lakes for irrigation. The 140 Lake System and the 142 Lake System have different triggering criteria for their respective drought stages and different responses to those drought stages. Therefore, the initiation and/or termination of a drought stage for the 140 Lake System does not initiate and/or terminate a drought stage for the 142 Lake System, and the initiation and/or termination of a drought stage for the 142 Lake System does not initiate and/or terminate a drought stage for the 140 Lake System.

The District also has certain amenity/detention lakes with static water level elevations above 142.0 feet above mean sea level (the "Perched Lakes"). Reference Exhibit A. Water levels in the Perched Lakes are maintained with water supplied from the 140 Lake System and/or the 142 Lake System. The Perched Lakes do not store water for purpose of providing a source of supply for the District's irrigation system. As such, Triggering Conditions are not necessary with respect to the Perched Lakes.

A. 140 LAKE SYSTEM

1. <u>Stage 1 Water Shortage Conditions ("Stage 1")</u>

- i. <u>Requirements for Initiation</u> The District will initiate Stage 1 when the lake level drops below Elev. 138.5 or when monitoring of water demands/weather forecasts indicate earlier initiation is necessary. The District's Operator will notify the Development Team of the initiation of Stage 1.
- ii. Requirements for Termination Stage 1 may be rescinded when the lake level rises above Elev. 138.5. The District's Operator will notify the Development Team of the termination of Stage 1.

2. <u>Stage 2 Water Shortage Conditions ("Stage 2")</u>

- i. <u>Requirements for Initiation</u> The District will initiate Stage 2 when the lake level drops below Elev. 138.0 or when monitoring of water demands/weather forecasts indicate earlier initiation is necessary. The District's Operator will notify the Development Team of the initiation of Stage 2.
- ii. Requirements for Termination Stage 2 may be rescinded when the lake level rises above Elev. 138.0. The District's Operator will notify the Development Team of the termination of Stage 2. Upon the termination of Stage 2, Stage 1 becomes operative, if the lake level is below Elev. 138.5.

3. Stage 3 Water Shortage Conditions ("Stage 3")

- i. <u>Requirements for Initiation</u> The District will initiate Stage 3 when the lake level drops below Elev. 137.5 or when monitoring of water demands/weather forecasts indicate earlier initiation is necessary. The District's Operator will notify the Development Team of the initiation of Stage 3.
- ii. Requirements for Termination Stage 3 may be rescinded when the lake level rises above Elev. 137.5. The District's Operator will notify the Development Team of the termination of Stage 3. Upon the termination of Stage 3, Stage 2 or Stage 1 becomes operative, if the lake level is below Elev. 138.0 or 138.5, respectively.

B. 142 LAKE SYSTEM

1. <u>Stage 1 Water Shortage Conditions ("Stage 1")</u>

- i. <u>Requirements for Initiation</u> The District will initiate Stage 1 when the lake level drops below Elev. 140.5 or when monitoring of water demands/weather forecasts indicate earlier initiation is necessary. The District's Operator will notify the Development Team of the initiation of Stage 1.
- ii. Requirements for Termination Stage 1 may be rescinded when the lake level rises above Elev. 140.5. The District's Operator will notify the Development Team of the termination of Stage 1.

2. <u>Stage 2 Water Shortage Conditions ("Stage 2")</u>

- i. <u>Requirements for Initiation</u> The District will initiate Stage 2 when the lake level drops below Elev. 140.0 or when monitoring of water demands/weather forecasts indicate earlier initiation is necessary. The District's Operator will notify the Development Team of the initiation of Stage 1.
- ii. Requirements for Termination Stage 2 may be rescinded when the lake level rises above Elev. 140.0. The District's Operator will notify the Development Team of the termination of Stage 2. Upon termination of Stage 2, Stage 1 becomes operative, if the lake level is below Elev. 140.5.

3. Stage 3 Water Shortage Conditions ("Stage 3")

- i. Requirements for Initiation The District will initiate Stage 3 when the lake level drops below Elev. 139.5 or when monitoring of water demands/weather forecasts indicate earlier initiation is necessary. The District's Operator will notify the Development Team of the initiation of Stage 3.
- ii. Requirements for Termination Stage 3 may be rescinded when the lake level rises above Elev. 139.5. The District's Operator will notify the Development Team of the termination of Stage 3. Upon termination of Stage 3, Stage 2 or Stage 1 becomes operative, if the lake level is below Elev. 140.0 or 140.5, respectively.

Section VIII Standard Operating Procedures and Drought Response Stages

A. STANDARD OPERATING PROCEDURES

Unless a drought stage is initiated, the District's Operator will implement the following standard operating procedures:

1. 140 Lake System

- i. WWTP Reclaimed Water constantly flows to the 140 Lake System.
- ii. When the lake level drops to Elev. 139.5, the District's automatic float control will turn on the Cypress Creek Pump Station.

2. 142 Lake System

i. When the lake levels drop to Elev. 141.5, the District's Operator will open the Hidden Pass Lake Fill during non-irrigation hours (10:00 AM – 5:00 PM). It will be turned off at Elev. 142.0 and have a low water turn off at Elev. 138.0 in the 140 Lake.

3. <u>Perched Lakes</u>

i. The Perched Lakes are maintained at or within 6 inches below the respective static water level elevations shown on Exhibit A.

4. Pumpage Data

i. The District's Operator shall communicate via email the monthly pumpage data for each irrigation pump station to the Irrigation Operator.

B. DROUGHT RESPONSE STAGES

The District's Operator will implement the following actions, in connection with the designated Irrigation Operator (see Exhibit B) when a drought stage is initiated:

1. <u>Landscaping Priorities During All Drought Stages</u>

- i. It will be determined whether to reduce or turn off certain irrigation zones based on the type of landscaping they water:
 - (a) Irrigation for all turf and Class D landscaping should be reduced or turned off first:
 - (b) Irrigation for all landscaping beds should be reduced or turned off next; and
 - (c) Irrigation for all trees should not be modified for as long as possible.

2. <u>140 Lake System</u>

- i. <u>Stage 1 Water Shortage Conditions.</u>
 - (a) <u>Target</u>. Achieve a 25% reduction in non-potable irrigation water use.
 - (b) <u>Response Measures</u>. The District's Operator shall instruct the Irrigation Operator to:
 - Reduce non-potable irrigation water use by 25%;
 - Reduce Class A and Class B with wildflower turf areas to 2 cycles per week; and
 - Reduce Class B areas to 1 cycle per week.

ii. <u>Stage 2 Water Shortage Conditions.</u>

- (a) <u>Target</u>. Achieve a 50% reduction in non-potable irrigation water use.
- (b) <u>Response Measures.</u> The District's Operator shall instruct the Irrigation Operator to:
 - Reduce non-potable irrigation water use by 50%; and
 - Reduce Class B areas to zero cycles per week.

iii. Stage 3 Water Shortage Conditions.

- (a) <u>Target</u>. Achieve a 75% reduction in non-potable irrigation water use.
- (b) <u>Response Measures.</u> The District's Operator shall instruct the Irrigation Operator to:
 - Reduce non-potable irrigation water use by 75%;
 - Reduce all turf areas to zero cycles per week; and
 - Unless or until otherwise directed by the District's Board of Directors, turn on Make Up Well No. 1, Make Up Well No. 4, and Make Up Well No. 5.

3. <u>142 Lake System</u>

- i. <u>Stage 1 Water Shortage Conditions.</u>
 - (a) <u>Target</u>. Achieve a 25% reduction in non-potable irrigation water use.
 - (b) <u>Response Measures</u>. The District's Operator shall instruct the Irrigation Operator to:
 - Reduce non-potable irrigation water use by 25%; and
 - Turn on Hidden Pass Lake Fill during all hours.
- ii. <u>Stage 2 Water Shortage Conditions.</u>
 - (a) <u>Target</u>. Achieve a 50% reduction in non-potable irrigation water use.
 - (b) <u>Response Measures</u>. The District's Operator shall instruct the Irrigation Operator to:
 - Reduce non-potable irrigation water use by 50%; and
 - Reduce Class B area to zero cycles per week.

iii. Stage 3 Water Shortage Conditions.

- (a) <u>Target</u>. Achieve a 75% reduction in non-potable irrigation water use.
- (b) <u>Response Measures</u>. The District's Operator shall instruct the Irrigation Operator to:
 - Reduce non-potable irrigation water use by 75%;
 - Reduce all turf areas to zero cycles per week;
 - Unless or until otherwise directed by the District's Board of Directors, turn on Make Up Well 3 (turn off @ 139.0); and
 - Turn off fill lines to Perched Lakes and Lake Bridgeland.

Section IX Water Conservation Plan

The District has developed the following water conservation plan.

A. 5-AND 10-YEAR WATER CONSERVATION TARGET GOALS

The District does not serve as a supplier to individual end users. Therefore, the water conservation measures described below relate only to the District's current and future demands and use of water. The District's goal is to achieve a reduction of 1% per annum per acre, for a 5-year goal of a 5% reduction and a 10-year goal of a 10% reduction.

Notwithstanding the targets identified above, the District shall not be obligated to achieve any water savings, and the District's failure to do so shall not subject the District to any liability whatsoever.

B. WATER CONSERVATION METHODS

- 1. <u>Recycling and Reuse</u> The District will promote water conservation by implementing a program for reuse of wastewater. The District uses, and will continue to use, WWTP reclaimed water to supply the District's irrigation system and to maintain amenity lake levels.
- 2. <u>Standard Operating Procedures of Make Up Wells</u> To reduce the impact on groundwater resources, the District has implemented operating procedures that limit the use of groundwater from make-up wells. Pursuant to the operating procedures, the District Operator will only turn on the make-up wells during certain periods of water shortages.

Section X Severability; Amendment

It is hereby declared to be the intention of the District that the sections, paragraphs, sentences, clauses, and phrases of this Plan are severable and, if any phrase, clause, sentence, paragraph, or section of this Plan shall be declared invalid, unenforceable or unconstitutional by the valid judgment or decree of any court of competent jurisdiction, such invalidity, unenforceability, or unconstitutionality shall not affect any of the remaining phrases, clauses, sentences, paragraphs, and sections of this Plan, which shall be enforceable as if the same had been enacted by the District without the incorporation into this Plan of any such invalid, unenforceable or unconstitutional phrase, clause, sentence, paragraph, or section.

The District has and specifically reserves the right to change, alter or amend any provision of this Plan at any time. The District shall renew and update, as appropriate, this Plan at least every five (5) years, based on new or updated information, such as adoption or revision of any applicable regional water plan, or as may otherwise be required by applicable statutes or rules of the Commission.

EXHIBIT A

[Map Follows]

EXHIBIT B

[Development Team]

Bridgeland Development, LP:

Tricia Brasseaux: tricia.brasseaux@howardhughes.com

Kelsey Thorne: kelsey.thorne@howardhughes.com

District Operator — Inframark, LLC:

Todd Burrer: todd.burrer@inframark.com

Mackenzie Osborne: <u>mackenzie.osborne@inframark.com</u>

Irrigation Operator — The Spencer Company:

Brad Wander: <u>bradw@spencerco.com</u>

Jeremy Hitchcock: jeremyh@spencerco.com

District Engineer — BGE, Inc:

Will Gutowsky: wgutowsky@bgeinc.com

Kristen Turkal: kturkal@bgeinc.com

District Attorneys — Schwartz, Page & Harding, L.L.P.:

Joseph M. Schwartz: jschwartz@sphllp.com

Mitchell Page: mgpage@sphllp.com

Bridgeland Council, Inc. — Inframark, LLC:

Melissa Hargrove: melissa.hargrove@inframark.com

Robert Throne: robert.throne@inframark.com