



Inspection Report

To: David Bacher, NRG
From: Richard Southorn, P.E., P.G.
Re: Indian River Landfill – Annual CCR Unit Inspection Report
Inspection Date: October 16, 2019
Memo Date: January 18, 2020

INTRODUCTION

Title 40 Code of Federal Regulations (CFR) Part 257 addresses, in part, the management of Coal Combustion Residuals (CCR) in regulated units, including landfills. Specific to §257.84(b) of the Rule, existing and new CCR landfills must be inspected on an annual basis by a qualified professional engineer. For the Indian River Generating Station (owned by Indian River Power, LLC, a subsidiary of NRG Energy, Inc. [NRG]), this inspection requirement applies to the existing Indian River Landfill (IRLF). IRLF consists of two phases. Phase I was constructed and closed prior to the implementation of the CCR Rule and is therefore exempt from these regulations. Phase II is a horizontal expansion of Phase I and has a piggyback component (vertical expansion). Phase II is currently operational and therefore falls under the CCR Rule regulations. Due to the fact that Phase II is a piggyback expansion, it is recognized that the stability of Phase I may impact Phase II. Therefore, both Phases I and II are inspected on an annual basis.

Mr. Richard Southorn (a qualified professional engineer with APTIM Environmental & Infrastructure, Inc. [Aptim]) conducted the 2019 annual on-site inspection of IRLF on October 16, 2019. The findings from this annual inspection are summarized in the remaining sections of this correspondence.

As required, this report will be placed in the Indian River facility's operating record per §257.105(g)(9), noticed to the State Director per §257.106(g)(7), and posted to the publicly accessible internet site per §257.107(g)(7). The 2018 annual inspection report was placed into the facility's operating record on January 18, 2019. Therefore, this report must be placed into the facility's operating record on January 18, 2020 to meet the annual reporting requirements of §257.84(b)(4).

BACKGROUND

The IRLF is an industrial waste landfill used solely for the disposal of CCR wastes or other industrial wastes generated at the station and is operated/maintained in accordance with the State of Delaware Department of Natural Resources and Environmental Control (DNREC) Solid Waste Permit No. 12/01. The IRLF disposal areas are located approximately one half of a mile south of the Generating Station.

The landfill consists of two major phases, Phase I and Phase II. Phase I is unlined and has a 46 acre footprint. Phase I began accepting waste in 1980 and cap construction was approved and certified closed by DNREC on October 20th, 2014. Phase II has a composite liner, and is 28 acres

in size. The Phase II expansion is comprised of two landfill cells (Cell 1 and 2) located west of Phase I and a piggyback (filling over Phase I) expansion on the western slopes of Phase I. The piggyback expansion of Phase II is separated from Phase I by a composite liner system.

The Phase II expansion began accepting waste on September 17, 2010 within Cell 1. Cell 2 received operational authorization in 2015. Cell 1 is not actively receiving CCR material and has a vegetated intermediate cover. Cell 2 is currently open and actively receiving CCR material. No additional areas have been closed. The facility is permitted to sell the CCR for beneficial reuse projects and will continue to seek opportunities to do so.

With respect to the IRLF, Aptim's evaluation has focused on the following items as outlined in §257.84(b)(1)(i-ii):

- *A review of available information regarding the status and condition of the CCR unit, including, but not limited to, files available in the operating record; and*
- *A visual inspection of the CCR unit to identify signs of distress or malfunction.*

Specific to Aptim's preparation of this annual inspection report, and per §257.84(b)(2) (i-iv), the following aspects of the CCR unit have been documented:

- *Any changes in geometry of the structure since the previous annual inspection;*
- *The approximate volume of CCR contained in the unit at the time of the inspection;*
- *Any appearances of an actual or potential structural weakness of the CCR unit, in addition to any existing conditions that are disrupting or have the potential to disrupt the operation and safety of the CCR unit; and*
- *Any other change(s) which may have affected the stability or operation of the CCR unit since the previous annual inspection.*

OPERATING RECORDS REVIEW

The operating records review of the facility's operating record and verification were performed during the site inspection. Files reviewed during the on-site inspection included but were not limited to: 2011 Phase II Landfill Expansion Application, NRG Permit SW-12/01, Annual Landfill Operations Report, Weekly Inspection Reports, Leachate Collection System Daily Inspection Reports, Phase I Cap Inspection Forms, Stormwater Conveyance and Discharge System Forms, and Daily/After Storm Event Erosion Control/Emissions Inspection Forms. During the site inspection, Mr. Southorn interviewed Charlie Griggs (Landfill Manager) to verify the information contained within the operating record.

Environmental Control System Overview

- a. Bottom Liner System - The Phase II has a composite liner system that consists of a geosynthetic clay liner (GCL) and geomembrane liner system. The composite liner system extends along the piggyback portion between Phase I and Phase II thereby creating a separate layer.
- b. Leachate Collection System - Phase II has a 12-inch drainage system with a series of collection pipes that drain to two sumps located on the north perimeter of Cell 2

and the south perimeter of Cell 1. The leachate is then pumped via a below grade leachate forcemain to the existing above grade leachate storage tanks located west of the landfill. From the tanks, leachate is trucked to the Indian River Generating Station for reuse in the bottom ash system.

- c. Stormwater Management - Non-contact stormwater is drained around the landfill in accordance with the current NPDES permit to stormwater detention basins/ponds located north and south of the landfill. Stormwater run-off from within the active area is collected and managed within the leachate collection system.
- d. Final Cover System - Phase I has received a final cover system and is closed, Cell 1 in Phase II has a vegetated intermediate cover and is not actively accepting CCR material, and Cell 2 in Phase II is an active unit and therefore has no final cover.

Summary of Landfill Construction

As of the date of this inspection, Phase I has been capped and closed. Cell 1 in Phase II is not actively receiving CCR material. Cell 2 in Phase II is currently open and actively receiving CCR material. No additional areas have been closed since the previous annual inspection.

Review of Prior Inspections

- a. Weekly inspections: A review of weekly inspection reports since the date of the last annual inspection was completed to understand any deficiencies and remedial actions. Some minor corrective actions were noted for cover and erosion repairs. All deficiencies were found to be remedied in a timely manner.
- b. Annual inspections: A review of the previous annual inspection has determined that there were no deficiencies or releases, actual or potential structural weaknesses, or concern to the stability of the land form. All environmental control systems were in good operating condition and functioning as intended.

Summary of CCR Volumes

As previously stated, approximately 237,599 cy have been placed in Cell 2 through December 31, 2019. Cell 1 has largely been filled, but NRG Energy estimates that Phase II Cell 1 has approximately 5,000 cy of emergency capacity left in case Cell 2 becomes inaccessible.

SITE INSPECTION

The site inspection was performed on October 16, 2019 by Mr. Southorn. Mr. Southorn focused on standard geotechnical signs of distress or malfunction such as slumping at the toe of slope, tensile cracking, abnormal or excessive erosion on the side slopes or stormwater management facilities, slope bulging, groundwater/surface water seepage or ponding, etc. These visual signs are potential indicators of structural weakness of the CCR Landfill unit.

Visual Signs of Distress or Malfunction

Minor erosion rills formed after large storm events in 2019. These rills were identified as part of routine weekly landfill inspections and remediated. Areas with identified erosion features were regraded, and seeded with matting stabilization. The vegetation has become established,

although it is has not yet received full coverage. The remedy was deemed appropriate and successful.

Other than minor erosion features discussed above, no visual signs of distress or malfunction were observed during the inspection. Stormwater drainage features, slope appearance and stability, leachate conveyance mechanisms, and overall site conditions were assessed. Closed portions of Phase I and Phase II and stabilized intermediate cover areas of Phase II exhibited well established vegetative cover.

Review of Environmental Control Systems

With no evidence to the contrary, the environmental control systems at IRLF are believed to be in good operating condition and functioning as intended. At the time of the inspection, leachate and stormwater conveyance systems were operating as designed.

CONCLUSIONS

Based on a review of the facility's operating record, site interviews and a site inspection, the following conclusions were developed:

Changes in Geometry

As of the date of this inspection, Cell 2 of Phase II is open and receiving CCR material. Active filling operations in Cell 2 in the approximate location shown in the attached figure at a peak elevation generally equal the surrounding perimeter road elevation.

CCR Volume

As previously stated, approximately 237,599 cy have been placed in Cell 2 through December 31, 2019. Cell 1 has largely been filled, but NRG Energy estimates that Phase II Cell 1 has approximately 5,000 cy of emergency capacity left in case Cell 2 becomes inaccessible.

Appearances of an Actual or Potential Structural Weakness of CCR Unit

At the time of inspection, there were no signs of distress or malfunction that would indicate actual or potential structural weakness at either Phase I or II.

Changes that May Affect the Stability or Operation of the CCR Unit

There have been no changes to the Indian River Landfill area that pose a threat or concern to the stability of the land form.

RECOMMENDATIONS

Based on the on-site inspection performed on October 16, 2019, APTIM recommends the following actions:


1. Continue operation and maintenance within the active landfilling area as currently performed.
2. Maintain adequate access to the closed portions of the landfill to maintain the ability to perform weekly visual site structural inspections.

There were no deficiencies or releases identified during the 2019 annual inspection that require the owner or operator to perform corrective actions as required under §257.84(b)(5).

PROFESSIONAL ENGINEER'S CERTIFICATION

In accordance with §257.84(b) of the Rule, I hereby certify based on a review of available information within the facility's operating records and observations from my personal on-site inspection (including the photographs contained in Attachment 2), that the IRLF does not exhibit any appearances of actual/potential structural weakness that would be disruptive to the normal operations of the IRLF. The unit is being operated and maintained consistent with recognized and generally accepted good engineering standards and practices.

Certified by: _____



Date: 1/18/2020

Date: _____



Richard Southern, P.E., P.G.
Professional Engineer Registration No. PE 20894
APTIM Environmental & Infrastructure, LLC

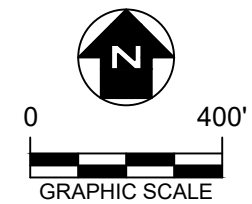
ATTACHMENTS

1. Site Map
2. Inspection Photo Log

REFERENCES

1. 2018 Landfill Periodic Inspection Report (dated January 18, 2019)
2. 2019 Annual Landfill Operations Report NRG Energy Indian River Generating Station
3. 40 Code of Federal Regulations Part 257.
4. Routine Inspection Reports.
5. DNREC Solid Waste Permit No. 12/01

Attachment 1
Site Map



LEGEND

← 2019 ANNUAL INSPECTION PHOTOGRAPH (ARROW DENOTES DIRECTION OF VIEW)

REV. NO.	DATE	DESCRIPTION



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INDIAN RIVER LANDFILL DAGSBORO, DELAWARE					
2019 ANNUAL INSPECTION					
DRAWN BY:	BWM	APPROVED BY:	RDS	PROJ. NO.:	631224966
			DATE:	JANUARY 2020	

Attachment 2

Photo Log

Project: Indian River 2019 Annual Inspection

Photographer: Richard Southorn

Image: 3213
 Date: 10/16/2019
 Time: 6:25:00 AM
 Direction: South

Description:

5 mph speed limit near active face.



Image: 3217
 Date: 10/16/2019
 Time: 6:27:00 AM
 Direction: East

Description:

Non-contact stormwater that falls on final cover is collected at the toe of Phase II Cell 1 North slope, which then gravity drains into the perimeter stormwater ditch. These efforts reduce contact water by diverting the water before it enters the active face. Discharge location shown in photograph.



Project: Indian River 2019 Annual Inspection

Photographer: Richard Southorn

Image: 3219
Date: 10/16/2019
Time: 6:28:00 AM
Direction: South

Description:

Armored perimeter stormwater channel.



Image: 3221
Date: 10/16/2019
Time: 6:30:00 AM
Direction: Southeast

Description:

Non-contact stormwater that falls on final cover is collected at the toe of Phase II Cell 1 North slope, which then gravity drains into the perimeter stormwater ditch. Bermed stormwater collection area at toe of slope shown in photograph. Concrete blocks dissipate energy before entering pipe.



Project: Indian River 2019 Annual Inspection

Photographer: Richard Southorn

Image: 3223
 Date: 10/16/2019
 Time: 6:31:00 AM
 Direction: Southwest

Description:

Non-contact stormwater that falls on final cover is collected at the toe of Phase II Cell 1 North slope and pumped into the perimeter stormwater ditch. Bermed stormwater collection area and pipe inlet shown in photograph. Concrete blocks dissipate energy before entering pipe.



Image: 3225
 Date: 10/16/2019
 Time: 6:31:00 AM
 Direction: North

Description:

Overview of active area where CCR is placed in controlled lifts.



Project: Indian River 2019 Annual Inspection

Photographer: Richard Southorn

Image: 3227
Date: 10/16/2019
Time: 6:33:00 AM
Direction: Southeast

Description:

Elbow of Phase 1/Phase 2 Cell 1 confluence, looking upslope. Erosion was observed following a significant recent rain event in 2018. The elbow was repaired in 2018 but vegetation had not been established by the 2018 Annual Inspection. One year later, vegetation is thick and healthy.



Image: 3229
Date: 10/16/2019
Time: 6:34:00 AM
Direction: West

Description:

Phase 2 Cell 1/Cell 2 boundary. Slopes are well vegetated with no sign of erosion, sloughing, or animal borrows.



Project: Indian River 2019 Annual Inspection

Photographer: Richard Southorn

Image: 3231
Date: 10/16/2019
Time: 6:35:00 AM
Direction: Northwest

Description:

Overview of active face and Phase I intermediate cover slopes. Slopes are well vegetated with no sign of erosion or sloughing. Active area is well maintained and orderly.



Image: 3233
Date: 10/16/2019
Time: 6:35:00 AM
Direction: North

Description:

Phase I intermediate cover slopes are well vegetated with no sign of erosion or sloughing.



Project: Indian River 2019 Annual Inspection

Photographer: Richard Southorn

Image: 3235
 Date: 10/16/2019
 Time: 6:36:00 AM
 Direction: North

Description:

Phase I intermediate cover slopes are well vegetated with no sign of erosion or sloughing. Vegetation shown was mowed shortly before inspection.



Image: 3237
 Date: 10/16/2019
 Time: 6:37:00 AM
 Direction: North

Description:

Phase I intermediate cover slopes are well vegetated with no sign of erosion or sloughing. Vegetation shown was mowed shortly before inspection.



Project: Indian River 2019 Annual Inspection

Photographer: Richard Southorn

Image: 3239
 Date: 10/16/2019
 Time: 6:39:00 AM
 Direction: North

Description:

Active face is well maintained. Material is graded and compacted. No ponding water.



Image: 3241
 Date: 10/16/2019
 Time: 6:40:00 AM
 Direction: Northeast

Description:

Erosion control berm that has been established on active face. This berm slows contact water travelling over the active face during rain events, which in turn minimizes erosion. Pipes at the toe of the berm collect contact water and convey it to the leachate sump.



Project: Indian River 2019 Annual Inspection

Photographer: Richard Southorn

Image: 3243
 Date: 10/16/2019
 Time: 6:42:00 AM
 Direction: Northeast

Description:

Erosion control berm that has been established on active face. This berm slows contact water travelling over the active face during rain events, which in turn minimizes erosion. Pipes at the toe of the berm collect contact water and convey it to the leachate sump.



Image: 3245
 Date: 10/16/2019
 Time: 6:45:00 AM
 Direction: North

Description:

Erosion control berm that has been established on active face. This berm slows contact water travelling over the active face during rain events, which in turn minimizes erosion. Pipes at the toe of the berm collect contact water and convey it to the leachate sump.



Project: Indian River 2019 Annual Inspection

Photographer: Richard Southorn

Image: 3247
Date: 10/16/2019
Time: 6:45:00 AM
Direction: Northwest

Description:

Sump area of active face. During the previous inspection, standing water was present in this location due to large rains. Significant efforts have been made to remove standing water, which was treated as leachate.



Image: 3249
Date: 10/16/2019
Time: 6:47:00 AM
Direction: Southeast

Description:

Lift of fly ash in active face. Well placed, graded, and maintained.



Project: Indian River 2019 Annual Inspection

Photographer: Richard Southorn

Image: 3251
Date: 10/16/2019
Time: 6:48:00 AM
Direction: Southeast

Description:

Lift of fly ash in active face. Well placed, graded, and maintained.



Image: 3253
Date: 10/16/2019
Time: 6:51:00 AM
Direction: East

Description:

Mowing being completed on the Phase I intermediate cover slopes. Slopes are well vegetated with no sign of erosion or sloughing.



Project: Indian River 2019 Annual Inspection

Photographer: Richard Southorn

Image: 3255
Date: 10/16/2019
Time: 6:54:00 AM
Direction: North

Description:

Final cover on sideslopes of Phase II Cell 1. Vegetation is healthy with full coverage. No signs of erosion stability issues observed on sideslope.



Image: 3257
Date: 10/16/2019
Time: 6:55:00 AM
Direction: East

Description:

An area of Phase II Cell 1 experienced erosion rills, which were identified as part of routine inspections and documented in operating record. New protective soil was placed, graded, and vegetated. Erosion control netting was utilized. Vegetation is beginning to grow in.



Project: Indian River 2019 Annual Inspection

Photographer: Richard Southorn

Image: 3259
Date: 10/16/2019
Time: 6:56:00 AM
Direction: Southeast

Final cover on sideslopes of Phase II Cell 1. Vegetation is healthy with full coverage. No signs of erosion stability issues observed on sideslope.



Image: 3261
Date: 10/16/2019
Time: 6:58:00 AM
Direction: Northeast

Description:

Final cover on sideslopes of Phase II Cell 1. Vegetation is healthy with full coverage. No signs of erosion stability issues observed on sideslope.



Project: Indian River 2019 Annual Inspection

Photographer: Richard Southorn

Image: 3263
Date: 10/16/2019
Time: 6:58:00 AM
Direction: Southwest

Description:

Overview of stormwater basin.



Image: 3265
Date: 10/16/2019
Time: 7:02:00 AM
Direction: South

Description:

Stormwater basin forebay.
In good condition.



Project: Indian River 2019 Annual Inspection

Photographer: Richard Southorn

Image: 3267
Date: 10/16/2019
Time: 7:03:00 AM
Direction: Northeast

Description:

Inlets to stormwater basin.
Clear of obstruction at
inlets and outlets.



Image: 3269
Date: 10/16/2019
Time: 7:04:00 AM
Direction: Northeast

Description:

Phase 1, Cell 1 leachate
pump house and
stormwater culvert.
Building is appropriately
signed. Culvert is free of
obstructions.



Project: Indian River 2019 Annual Inspection

Photographer: Richard Southorn

Image: 3271
 Date: 10/16/2019
 Time: 7:05:00 AM
 Direction: North

Description:

Phase 1, Cell 1 leachate instrument panel. Good working order.



Image: 3273
 Date: 10/16/2019
 Time: 7:05:00 AM
 Direction: Northwest

Description:

Inside Phase 1, Cell 1 Leachate Pump House. Cleanout riser and pump risers with T connection to forcemain shown. Building is well maintained.



Project: Indian River 2019 Annual Inspection

Photographer: Richard Southorn

Image: 3275
Date: 10/16/2019
Time: 7:06:00 AM
Direction: Northeast

Description:

Final cover vegetative cover is dense and healthy.



Image: 3277
Date: 10/16/2019
Time: 7:09:00 AM
Direction: Northeast

Description:

Terrace berm. Clear of obstructions and functioning as intended. Vegetative cover is dense and healthy.



Project: Indian River 2019 Annual Inspection

Photographer: Richard Southorn

Image: 3279
Date: 10/16/2019
Time: 7:09:00 AM
Direction: West

Description:

Terrace berm. Clear of obstructions and functioning as intended. Vegetative cover is dense and healthy.



Image: 3281
Date: 10/16/2019
Time: 7:12:00 AM
Direction: Southeast

Description:

Phase 2, Cell 2 leachate pump house. Building exterior is in good condition and appropriately signed.



Project: Indian River 2019 Annual Inspection

Photographer: Richard Southorn

Image: 3283
 Date: 10/16/2019
 Time: 7:13:00 AM
 Direction: Southeast

Description:

Leachate liquid level indicator and controls in the Phase 2, Cell 2 leachate pump house.



Image: 3285
 Date: 10/16/2019
 Time: 7:16:00 AM
 Direction: Southeast

Description:

Landfill sideslopes and terraces are well maintained. No evidence of slope stability issues.



Project: Indian River 2019 Annual Inspection

Photographer: Richard Southorn

Image: 3287
Date: 10/16/2019
Time: 7:19:00 AM
Direction: South

Description:

Downchute near southwest forebay of Northeast Detention Basin.



Image: 3289
Date: 10/16/2019
Time: 7:20:00 AM
Direction: West

Description:

Final cover on sideslopes with stormwater ditch in foreground.



Project: Indian River 2019 Annual Inspection

Photographer: Richard Southorn

Image: 3291
Date: 10/16/2019
Time: 7:20:00 AM
Direction: West

Description:

Phase 1 terrace berm.
Clear of obstructions and
functioning as intended.
Vegetative cover is dense
and healthy.



Image: 3293
Date: 10/16/2019
Time: 7:21:00 AM
Direction: East

Description:

Phase 1 terrace berm.
Clear of obstructions and
functioning as intended.
Vegetative cover is dense
and healthy.



Project: Indian River 2019 Annual Inspection

Photographer: Richard Southorn

Image: 3295
Date: 10/16/2019
Time: 7:21:00 AM
Direction: Northeast

Description:

Phase 1 final cover.
Vegetative cover is dense
and healthy.



Image: 3297
Date: 10/16/2019
Time: 7:23:00 AM
Direction: North

Description:

Southeast forebay of
Northeast Detention
Basin. Functioning as
intended.



Project: Indian River 2019 Annual Inspection

Photographer: Richard Southorn

Image: 3299
Date: 10/16/2019
Time: 7:24:00 AM
Direction: Southeast

Description:

Phase 1 corner downchute road crossing equalizing pipes. Free of obstructions.



Image: 3301
Date: 10/16/2019
Time: 7:26:00 AM
Direction: North

Description:

Phase 1 final cover. Vegetative cover is dense and healthy.



Project: Indian River 2019 Annual Inspection

Photographer: Richard Southorn

Image: 3303
Date: 10/16/2019
Time: 7:26:00 AM
Direction: South

Description:

Phase 1 terrace berm.
Clear of obstructions and
functioning as intended.
Vegetative cover is dense
and healthy.



Image: 3305
Date: 10/16/2019
Time: 7:28:00 AM
Direction: Southeast

Description:

Phase 1 corner downchute.
Rock is in-place and not
migrating. No evidence of
washouts.



Project: Indian River 2019 Annual Inspection

Photographer: Richard Southorn

Image: 3307
Date: 10/16/2019
Time: 7:28:00 AM
Direction: Northwest

Description:

Phase 1 corner downchute. Rock is in-place and not migrating. No evidence of washouts.



Image: 3309
Date: 10/16/2019
Time: 7:29:00 AM
Direction: Southwest

Description:

Phase 1 final cover and stormwater terraces. Well maintained and functioning as intended.



Project: Indian River 2019 Annual Inspection

Photographer: Richard Southorn

Image: 3311
Date: 10/16/2019
Time: 7:30:00 AM
Direction: Northeast

Description:

Phase 1 final cover and stormwater terraces. Well maintained and functioning as intended.



Image: 3313
Date: 10/16/2019
Time: 7:30:00 AM
Direction: West

Description:

Phase 1 final cover and stormwater terraces. Well maintained and functioning as intended.



Project: Indian River 2019 Annual Inspection

Photographer: Richard Southorn

Image: 3315
Date: 10/16/2019
Time: 7:31:00 AM
Direction: Southwest

Description:

Phase 1 final cover and stormwater terraces. Well maintained and functioning as intended.



Image: 3317
Date: 10/16/2019
Time: 7:31:00 AM
Direction: Southwest

Description:

Final cover on plateau. Vegetation is well established. No signs of animal burrows or erosion.



Project: Indian River 2019 Annual Inspection

Photographer: Richard Southorn

Image: 3319
Date: 10/16/2019
Time: 7:32:00 AM
Direction: Southwest

Description:

Final cover on plateau.
Vegetation is well established. No signs of animal burrows or erosion.



Image: 3321
Date: 10/16/2019
Time: 7:33:00 AM
Direction: West

Description:

Final cover on plateau.
Vegetation is well established. No signs of animal burrows or erosion.



Project: Indian River 2019 Annual Inspection

Photographer: Richard Southorn

Image: 3323
Date: 10/16/2019
Time: 7:33:00 AM
Direction: Southeast

Description:

Final cover on plateau.
Vegetation is well established. No signs of animal burrows or erosion.



Image: 3325
Date: 10/16/2019
Time: 7:35:00 AM
Direction: North

Description:

Final cover on plateau.
Vegetation is well established. No signs of animal burrows or erosion.



Project: Indian River 2019 Annual Inspection

Photographer: Richard Southorn

Image: 3327
Date: 10/16/2019
Time: 7:36:00 AM
Direction: North

Description:

Final cover on plateau.
Vegetation is well established. No signs of animal burrows or erosion.



Image: 3329
Date: 10/16/2019
Time: 7:36:00 AM
Direction: Northwest

Description:

Final cover on plateau.
Vegetation is well established. No signs of animal burrows or erosion.



Project: Indian River 2019 Annual Inspection

Photographer: Richard Southorn

Image: 3331
Date: 10/16/2019
Time: 7:37:00 AM
Direction: Northeast

Description:

Final cover on plateau.
Vegetation is well established. No signs of animal burrows or erosion.



Image: 3333
Date: 10/16/2019
Time: 7:37:00 AM
Direction: North

Description:

Phase 2, Cell 2 active area from Phase 2 Cell 1 plateau.



Project: Indian River 2019 Annual Inspection

Photographer: Richard Southorn

Image: 3335
Date: 10/16/2019
Time: 7:38:00 AM
Direction: North

Description:

Mowing being completed on the Phase I intermediate cover slopes. Slopes are well vegetated with no sign of erosion or sloughing.



Image: 3337
Date: 10/16/2019
Time: 7:39:00 AM
Direction: Northeast

Description:



Project: Indian River 2019 Annual Inspection

Photographer: Richard Southorn

Image: 3339
Date: 10/16/2019
Time: 7:39:00 AM
Direction: Northwest

Description:

Final cover on plateau.
Vegetation is well established. No signs of animal burrows or erosion.



Image: 3341
Date: 10/16/2019
Time: 7:40:00 AM
Direction: North

Description:

Final cover on plateau.
Vegetation is well established. No signs of animal burrows or erosion.



Project: Indian River 2019 Annual Inspection

Photographer: Richard Southorn

Image: 3343
Date: 10/16/2019
Time: 7:41:00 AM
Direction: East

Description:

Final cover on plateau.
Vegetation is well established. No signs of animal burrows or erosion.



Image: 3345
Date: 10/16/2019
Time: 7:41:00 AM
Direction: North

Description:

Final cover on plateau.
Vegetation is well established. No signs of animal burrows or erosion.



Project: Indian River 2019 Annual Inspection

Photographer: Richard Southorn

Image: 3347
Date: 10/16/2019
Time: 7:41:00 AM
Direction: East

Description:

Final cover on plateau.
Vegetation is well established. No signs of animal burrows or erosion.



Image: 3349
Date: 10/16/2019
Time: 7:42:00 AM
Direction: Southeast

Description:

Inlet pipes on inside plateau berm to letdown channel.



Project: Indian River 2019 Annual Inspection

Photographer: Richard Southorn

Image: 3351
Date: 10/16/2019
Time: 7:42:00 AM
Direction: North

Description:

Final cover on plateau.
Vegetation is well established. No signs of animal burrows or erosion.



Image: 3353
Date: 10/16/2019
Time: 7:43:00 AM
Direction: Northwest

Description:

Final cover on plateau.
Vegetation is well established. No signs of animal burrows or erosion.



Project: Indian River 2019 Annual Inspection

Photographer: Richard Southorn

Image: 3355
Date: 10/16/2019
Time: 7:44:00 AM
Direction: South

Description:

Final cover on plateau.
Vegetation is well established. No signs of animal burrows or erosion.



Image: 3357
Date: 10/16/2019
Time: 7:44:00 AM
Direction: Northwest

Description:

Final cover on plateau.
Vegetation is well established. No signs of animal burrows or erosion.



Project: Indian River 2019 Annual Inspection

Photographer: Richard Southorn

Image: 3359
Date: 10/16/2019
Time: 7:48:00 AM
Direction: East

Description:

Southwest forebay of Northeast Detention Basin (Non-Contact Water). Functioning as intended.



Image: 3361
Date: 10/16/2019
Time: 7:49:00 AM
Direction: East

Description:

Northeast Detention Basin (Non-Contact Water).



Project: Indian River 2019 Annual Inspection

Photographer: Richard Southorn

Image: 3363
Date: 10/16/2019
Time: 7:49:00 AM
Direction: North

Description:
Monitoring well cluster.



Image: 3365
Date: 10/16/2019
Time: 7:51:00 AM
Direction: Northwest

Description:
Northeast Detention Basin outlet skimmer.



Project: Indian River 2019 Annual Inspection

Photographer: Richard Southorn

Image: 3367
Date: 10/16/2019
Time: 7:53:00 AM
Direction: West

Description:

Northeast Detention Basin
(Non-Contact Water).



Image: 3369
Date: 10/16/2019
Time: 7:53:00 AM
Direction: South

Description:

Southeast forebay of
Northeast Detention Basin
(Non-Contact Water).
Functioning as intended.



Project: Indian River 2019 Annual Inspection

Photographer: Richard Southorn

Image: 3371
Date: 10/16/2019
Time: 7:55:00 AM
Direction: Northwest

Description:

Toe of slope. No sign of erosion or slope stability issues.



Image: 3373
Date: 10/16/2019
Time: 7:56:00 AM
Direction: Northwest

Description:

Toe of slope. No sign of erosion or slope stability issues.



Project: Indian River 2019 Annual Inspection

Photographer: Richard Southorn

Image: 3375
Date: 10/16/2019
Time: 7:57:00 AM
Direction: North

Description:

Toe of slope. No sign of erosion or slope stability issues.

