**DETERMINATION OF NO HAZARD TO AIR NAVIGATION**

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

- **Structure:** Landfill East Oak RDF - Point B Southern Corner
- **Location:** Oklahoma City, OK
- **Latitude:** 35-29-51.00N NAD 83
- **Longitude:** 97-25-13.00W
- **Heights:**
  - 1146 feet site elevation (SE)
  - 349 feet above ground level (AGL)
  - 1495 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

As a condition to this Determination, the structure is to be marked/lighted in accordance with FAA Advisory circular 70/7460-1 L Change 2, Obstruction Marking and Lighting, red lights - Chapters 4,5(RED),&12.

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed any time the project is abandoned or:

- At least 10 days prior to start of construction (7460-2, Part 1)
- **X** Within 5 days after the construction reaches its greatest height (7460-2, Part 2)

This determination expires on 01/01/2020 unless:

(a) the construction is started (not necessarily completed) and FAA Form 7460-2, Notice of Actual Construction or Alteration, is received by this office.
(b) extended, revised, or terminated by the issuing office.
(c) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within
6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.

This determination is based, in part, on the foregoing description which includes specific coordinates, heights, frequency(ies) and power. Any changes in coordinates, heights, and frequencies or use of greater power, except those frequencies specified in the Colo Void Clause Coalition; Antenna System Co-Location; Voluntary Best Practices, effective 21 Nov 2007, will void this determination. Any future construction or alteration, including increase to heights, power, or the addition of other transmitters, requires separate notice to the FAA. This determination includes all previously filed frequencies and power for this structure.

If construction or alteration is dismantled or destroyed, you must submit notice to the FAA within 5 days after the construction or alteration is dismantled or destroyed.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (817) 222-5928, or chris.smith@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2019-ASW-1290-OE.

Signature Control No: 396451820-401112400  (DNE)
Chris Smith
Specialist
Attachment(s)
Map(s)
**DETERMINATION OF NO HAZARD TO AIR NAVIGATION**

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

- **Structure:** Landfill East Oak RDF - Point C Northeast Corner
- **Location:** Oklahoma City, OK
- **Latitude:** 35-30-23.00N NAD 83
- **Longitude:** 97-24-35.00W
- **Heights:**
  - 1159 feet site elevation (SE)
  - 336 feet above ground level (AGL)
  - 1495 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

As a condition to this Determination, the structure is to be marked/lighted in accordance with FAA Advisory circular 70/7460-1 L Change 2, Obstruction Marking and Lighting, red lights - Chapters 4,5(Red),&12.

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed any time the project is abandoned or:

- At least 10 days prior to start of construction (7460-2, Part 1)
- **X** Within 5 days after the construction reaches its greatest height (7460-2, Part 2)

This determination expires on 10/01/2020 unless:

(a) the construction is started (not necessarily completed) and FAA Form 7460-2, Notice of Actual Construction or Alteration, is received by this office.
(b) extended, revised, or terminated by the issuing office.
(c) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within
6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.

This determination is based, in part, on the foregoing description which includes specific coordinates, heights, frequency(ies) and power. Any changes in coordinates, heights, and frequencies or use of greater power, except those frequencies specified in the Colo Void Clause Coalition; Antenna System Co-Location; Voluntary Best Practices, effective 21 Nov 2007, will void this determination. Any future construction or alteration, including increase to heights, power, or the addition of other transmitters, requires separate notice to the FAA. This determination includes all previously filed frequencies and power for this structure.

If construction or alteration is dismantled or destroyed, you must submit notice to the FAA within 5 days after the construction or alteration is dismantled or destroyed.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (817) 222-5928, or chris.smith@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2019-ASW-1291-OE.

Signature Control No: 396451827-401112398  (DNE)

Chris Smith
Specialist

Attachment(s)
Map(s)
**Determination of No Hazard to Air Navigation**

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

- **Structure:** Landfill East Oak RDF - Point D East Corner
- **Location:** Oklahoma City, OK
- **Latitude:** 35-30-05.00N NAD 83
- **Longitude:** 97-24-33.00W
- **Heights:**
  - 1168 feet site elevation (SE)
  - 327 feet above ground level (AGL)
  - 1495 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

As a condition to this Determination, the structure is to be marked/lighted in accordance with FAA Advisory circular 70/7460-1 L Change 2, Obstruction Marking and Lighting, red lights - Chapters 4,5(Red),&12.

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed any time the project is abandoned or:

- At least 10 days prior to start of construction (7460-2, Part 1)
- X Within 5 days after the construction reaches its greatest height (7460-2, Part 2)

This determination expires on 10/01/2020 unless:

(a) the construction is started (not necessarily completed) and FAA Form 7460-2, Notice of Actual Construction or Alteration, is received by this office.
(b) extended, revised, or terminated by the issuing office.
(c) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within
6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.

This determination is based, in part, on the foregoing description which includes specific coordinates, heights, frequency(ies) and power. Any changes in coordinates, heights, and frequencies or use of greater power, except those frequencies specified in the Colo Void Clause Coalition; Antenna System Co-Location; Voluntary Best Practices, effective 21 Nov 2007, will void this determination. Any future construction or alteration, including increase to heights, power, or the addition of other transmitters, requires separate notice to the FAA. This determination includes all previously filed frequencies and power for this structure.

If construction or alteration is dismantled or destroyed, you must submit notice to the FAA within 5 days after the construction or alteration is dismantled or destroyed.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (817) 222-5928, or chris.smith@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2019-ASW-1292-OE.

Signature Control No: 396451830-401112403 (DNE)
Chris Smith
Specialist

Attachment(s)
Map(s)
MAIL PROCESSING CENTER  
FEDERAL AVIATION ADMINISTRATION  
SOUTHWEST REGIONAL OFFICE  
OBSTRUCTION EVALUATION GROUP  
10101 HILLWOOD PARKWAY  
FORT WORTH, TX 76177

Issued Date: 04/01/2019

GUY R. CAMPBELL  
WASTE MANAGEMENT OF OKLAHOMA, INC.  
13720 E. 46TH STREET N.  
TULSA, OK 74116

**DETERMINATION OF NO HAZARD TO AIR NAVIGATION**

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

**Structure:** Landfill East Oak RDF - Point E South Corner  
**Location:** Oklahoma City, OK  
**Latitude:** 35-29-48.00N NAD 83  
**Longitude:** 97-24-50.00W  
**Heights:**  
- 1146 feet site elevation (SE)  
- 349 feet above ground level (AGL)  
- 1495 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is (are) met:

As a condition to this Determination, the structure is to be marked/lighted in accordance with FAA Advisory circular 70/7460-1 L Change 2, Obstruction Marking and Lighting, red lights - Chapters 4,5(Red),&12.

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed any time the project is abandoned or:

- [ ] At least 10 days prior to start of construction (7460-2, Part 1)  
- [X] Within 5 days after the construction reaches its greatest height (7460-2, Part 2)

This determination expires on 10/01/2020 unless:

(a) the construction is started (not necessarily completed) and FAA Form 7460-2, Notice of Actual Construction or Alteration, is received by this office.  
(b) extended, revised, or terminated by the issuing office.  
(c) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within
6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.

This determination is based, in part, on the foregoing description which includes specific coordinates, heights, frequency(ies) and power. Any changes in coordinates, heights, and frequencies or use of greater power, except those frequencies specified in the Colo Void Clause Coalition; Antenna System Co-Location; Voluntary Best Practices, effective 21 Nov 2007, will void this determination. Any future construction or alteration, including increase to heights, power, or the addition of other transmitters, requires separate notice to the FAA. This determination includes all previously filed frequencies and power for this structure.

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This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (817) 222-5928, or chris.smith@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2019-ASW-1293-OE.

Signature Control No: 396451831-401112399

Chris Smith
Specialist

Attachment(s)
Map(s)
**DETERMINATION OF NO HAZARD TO AIR NAVIGATION**

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure: Landfill East Oak RDF - Point F Southwest Corner  
Location: Oklahoma City, OK  
Latitude: 35-30-02.00N NAD 83  
Longitude: 97-25-16.00W  
Heights: 1161 feet site elevation (SE)  
334 feet above ground level (AGL)  
1495 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

As a condition to this Determination, the structure is to be marked/lighted in accordance with FAA Advisory circular 70/7460-1 L Change 2, Obstruction Marking and Lighting, red lights - Chapters 4,5(Blue),&12.

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed any time the project is abandoned or:

- At least 10 days prior to start of construction (7460-2, Part 1)  
- X Within 5 days after the construction reaches its greatest height (7460-2, Part 2)

This determination expires on 10/01/2020 unless:

(a) the construction is started (not necessarily completed) and FAA Form 7460-2, Notice of Actual Construction or Alteration, is received by this office.  
(b) extended, revised, or terminated by the issuing office.  
(c) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within
6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.

This determination is based, in part, on the foregoing description which includes specific coordinates, heights, frequency(ies) and power. Any changes in coordinates, heights, and frequencies or use of greater power, except those frequencies specified in the Colo Void Clause Coalition; Antenna System Co-Location; Voluntary Best Practices, effective 21 Nov 2007, will void this determination. Any future construction or alteration, including increase to heights, power, or the addition of other transmitters, requires separate notice to the FAA. This determination includes all previously filed frequencies and power for this structure.

If construction or alteration is dismantled or destroyed, you must submit notice to the FAA within 5 days after the construction or alteration is dismantled or destroyed.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (817) 222-5928, or chris.smith@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2019-ASW-1294-OE.

Signature Control No: 396451832-401112401

Chris Smith
Specialist

Attachment(s)
Map(s)
**DETERMINATION OF NO HAZARD TO AIR NAVIGATION**

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

**Structure:** Landfill East Oak RDF - Point G West Corner  
**Location:** Oklahoma City, OK  
**Latitude:** 35-30-14.00N NAD 83  
**Longitude:** 97-25-14.00W  
**Heights:** 1169 feet site elevation (SE)  
326 feet above ground level (AGL)  
1495 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation if provided the following condition(s), if any, is(are) met:

As a condition to this Determination, the structure is to be marked/lighted in accordance with FAA Advisory circular 70/7460-1 L Change 2, Obstruction Marking and Lighting, red lights - Chapters 4,7(Red),&12.

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed any time the project is abandoned or:

- At least 10 days prior to start of construction (7460-2, Part 1)  
- X Within 5 days after the construction reaches its greatest height (7460-2, Part 2)

This determination expires on 10/01/2020 unless:

(a) the construction is started (not necessarily completed) and FAA Form 7460-2, Notice of Actual Construction or Alteration, is received by this office.  
(b) extended, revised, or terminated by the issuing office.  
(c) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within
6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.

This determination is based, in part, on the foregoing description which includes specific coordinates, heights, frequency(ies) and power. Any changes in coordinates, heights, and frequencies or use of greater power, except those frequencies specified in the Colo Void Clause Coalition; Antenna System Co-Location; Voluntary Best Practices, effective 21 Nov 2007, will void this determination. Any future construction or alteration, including increase to heights, power, or the addition of other transmitters, requires separate notice to the FAA. This determination includes all previously filed frequencies and power for this structure.

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If we can be of further assistance, please contact our office at (817) 222-5928, or chris.smith@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2019-ASW-1295-OE.

Signature Control No: 396451833-401112405
Chris Smith
Specialist

Attachment(s)
Map(s)
**DETERMINATION OF NO HAZARD TO AIR NAVIGATION**

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure: Landfill East Oak RDF - Point H Northwest Corner
Location: Oklahoma City, OK
Latitude: 35-30-23.00N NAD 83
Longitude: 97-25-02.00W
Heights:
1145 feet site elevation (SE)
350 feet above ground level (AGL)
1495 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

As a condition to this Determination, the structure is to be marked/lighted in accordance with FAA Advisory circular 70/7460-1 L Change 2, Obstruction Marking and Lighting, red lights - Chapters 4,5(RED),&I2.

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed any time the project is abandoned or:

- At least 10 days prior to start of construction (7460-2, Part 1)
- X Within 5 days after the construction reaches its greatest height (7460-2, Part 2)

This determination expires on 10/01/2020 unless:

(a) the construction is started (not necessarily completed) and FAA Form 7460-2, Notice of Actual Construction or Alteration, is received by this office.
(b) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within
6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.

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This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

If we can be of further assistance, please contact our office at (817) 222-5928, or chris.smith@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2019-ASW-1296-OE.

Signature Control No: 396451834-401112404
( DNE )
Chris Smith
Specialist

Attachment(s)
Map(s)
Mr. Andrew B. Hollie  
FAA Specialist for Arkansas, Georgia, Louisiana, New Mexico,  
North Carolina, Oklahoma, and South Carolina  
Obstruction Evaluation Group, AJV-15  
10101 Hillwood Pkwy.  
Fort Worth, Texas 76177

To Whom It May Concern  
72 ABW/CC  
7460 Arnold St.  
Tinker AFB, OK 73145

Re: Compliance with Airport Location Restriction  
East Oak Recycling and Disposal Facility Expansion  
Oklahoma City, Oklahoma

The purpose of this letter is to demonstrate communication with the Federal Aviation Administration (FAA), consistent with Oklahoma Administrative Code (OAC) 252:515-5-52(e) and 252:515-5-52(e)(1)(A). These regulations require that a permit applicant for an expansion of municipal solid waste facility communicate with the FAA regarding the potential impact of the referenced project to existing airports or air traffic. Both OAC 252:515-5-52(e) and OAC 252:515-5-52(e)(1)(A) are echoed by the Environmental Protection Agency (EPA) in Title 40 Code of Federal Regulations (40 CFR) §258.10 – Airport Safety.

OAC 252:515-5-52(e) requires a permit applicant of any waste management or disposal area of a new land disposal facility, or expansion of waste management or disposal areas of an existing land disposal facility, to provide a demonstration that the facility will not pose a bird hazard to aircraft, if that facility or expansion to the existing facility is to be located within 10,000 feet of any airport runway end used by turbojet aircraft or within 5,000 feet of any airport runway end used by only piston-type aircraft.

Additionally, OAC 252:515-5-52(e)(1)(A) requires a permit applicant of waste management or disposal areas of a new land disposal facility, or expansion of waste management or disposal areas of an active land disposal facility, located within a 5-mile radius of any airport runway end used by a turbojet or piston-type aircraft to notify the FAA and the affected airport.
Weaver Consultants Group, LLC (WCG) is preparing a Tier III Permit Modification, under contract with Waste Management of Oklahoma, Inc. to expand their existing landfill, East Oak Recycling and Disposal Facility (RDF), located in the eastern portion of the City of Oklahoma City, Oklahoma. The site is located at 3201 Mosley Road, Oklahoma City, Oklahoma 73141. To assist you in your determination, please find the enclosed the following information.

- FAA Airport Vicinity Map. As shown, no airports are located within 10,000 feet. Tinker Air Force Base is located approximately 4.4 miles south of the site.

The East Oak RDF is located over 10,000 feet from the nearest runway end of the Tinker Air Force Base. Therefore, OAC 252:515-5-52(e) is not applicable. However, the facility is located within 5 miles of the nearest runway end of the Tinker Air Force Base. Therefore, OAC 252:515-5-52(e)(1)(A) is applicable and notification to the FAA and the Tinker Air Force Base is required.

The FAA Advisory Circular 150/5200-33B also references 40 CFR §258.10. The Advisory Circular states in Section 4-2(a):

"The Environmental Protection Agency (EPA) requires any MSWLF operator proposing a new or expanded waste disposal operation within 5 statute miles of a runway end to notify the appropriate FAA Regional Airports Division Office and the airport operator of the proposal (40 CFR 258, Criteria for Municipal Solid Waste Landfills, Section 258.10, Airport Safety). The EPA also requires owners or operators of new MSWLF units, or lateral expansions of existing MSWLF units, that are located within 10,000 feet of any airport runway end used by turbojet aircraft, or within 5,000 feet of any airport runway end used only by piston-type aircraft, to demonstrate successfully that such units are not hazards to aircraft."

According to the FAA Advisory Circular, Section 2-2(a), the East Oak RDF is an existing Municipal Solid Waste Landfill (MSWLF) having been established before April 5, 2001. As stated above, this facility is located over 10,000 feet from (but within 5 miles of) the nearest runway end of the Tinker Air Force Base. Therefore, the only requirement is to provide notification to the FAA and Tinker Air Force Base.

The FAA’s web-based Notice Criteria Tool (Obstruction Evaluation Version 2014.1.2) was also used, in addition to the regulations addressed in this letter, to determine notification requirements. Based on the Notice Criteria Tool, the East Oak RDF is required to file notice with the FAA in accordance with CFR Title 14 Part 77.9(a), which requires filing notice with the FAA for any construction or alteration that is more than 200 feet above ground level at the site. To assist with this filing notice, a Proposed Landfill Completion Plan (Drawing 2) is enclosed. This plan shows Points A through H, which have been uploaded to the FAA online obstruction evaluation portal so that an aeronautical study can be performed. Note that the peak elevation of the landfill occurs
at Point A. However, Points B through H are also set at the maximum landfill elevation to provide a conservative landfill configuration for the aeronautical study (the landfill elevations at these points are lower than the maximum landfill elevation for Point A).

In summary, East Oak RDF is an existing active land disposal facility located within 5 miles of an airport. Per the OAC and EPA regulations, as well as the FAA Advisory Circular, this only requires notification to the FAA and the affected airport (i.e., Tinker Air Force Base). WCG will also coordinate with an FAA specialist for Oklahoma regarding the potential for wildlife hazards.

Your assistance with this matter is sincerely appreciated. Please call if you have any questions or need additional information.

Sincerely,

Weaver Consultants Group, LLC

Crystal Alexander, G.I.T.
Staff Geologist

Attachments: FAA Airport Vicinity Map
Proposed Landfill Completion Plan

cc: Guy R. Campbell, Waste Management of Oklahoma, Inc.
Pete Schultze, Waste Management of Oklahoma, Inc.
FAA AIRPORT VICINITY MAP
PROPOSED LANDFILL COMPLETION PLAN
Mr. Gary Loftus  
Airports Compliance Program Manager  
Federal Aviation Administration  
Southwest Region, Airports Division-Safety and Standards Branch  
10101 Hillwood Pkwy  
Fort Worth, Texas 76177

To Whom It May Concern  
72 ABW/CC  
7460 Arnold St.  
Tinker AFB, OK 73145

Re: Potential for Wildlife Hazard Determination  
East Oak Recycling and Disposal Facility Expansion  
Oklahoma City, Oklahoma

The purpose of this letter is to demonstrate communication with the Federal Aviation Administration (FAA), consistent with Oklahoma Administrative Code (OAC) 252:515-5-52(e) and 252:515-5-52(e)(1)(A). These regulations require that a permit applicant for an expansion of municipal solid waste facility communicate with the FAA regarding the potential impact of the referenced project to existing airports or air traffic. Both OAC 252:515-5-52(e) and OAC 252:515-5-52(e)(1)(A) are reflected by the Environmental Protection Agency (EPA) in Title 40 Code of Federal Regulations (40 CFR) §258.10 – Airport Safety.

OAC 252:515-5-52(e) requires a permit applicant of any waste management or disposal area of a new land disposal facility, or expansion of waste management or disposal areas of an existing land disposal facility, to provide a demonstration that the facility will not pose a bird hazard to aircraft, if that facility or expansion to the existing facility is located within 10,000 feet of any airport runway end used by turbojet aircraft or within 5,000 feet of any airport runway end used by only piston-type aircraft.

Additionally, OAC 252:515-5-52(e)(1)(A) requires a permit applicant of waste management or disposal areas of a new land disposal facility, or expansion of waste management or disposal areas of an active land disposal facility, located within a 5-mile radius of any airport runway end used by a turbojet or piston-type aircraft to notify the FAA and the affected airport.

Weaver Consultants Group, LLC (WCG) is preparing a Tier III Permit Modification, under contract with Waste Management of Oklahoma, Inc., to expand their existing landfill, East Oak Recycling and Disposal Facility (RDF), located in the eastern portion
of the City of Oklahoma City, Oklahoma. The site is located at 3201 Mosley Road, Oklahoma City, Oklahoma 73141. To assist you in your determination, please find enclosed the following information.

- FAA Airport Vicinity Map. As shown, no airports are located within 10,000 feet. Tinker Air Force Base is located approximately 4.4 miles south of the site.

The East Oak RDF is located over 10,000 feet from the nearest runway end of the Tinker Air Force Base. Therefore, OAC 252:515-5-52(e) is not applicable. However, the facility is located within 5 miles of the nearest runway end of the Tinker Air Force Base. Therefore, OAC 252:515-5-52(e)(1)(A) is applicable and notification to the FAA and the Tinker Air Force Base is required.

The FAA Advisory Circular 150/5200-33B also references 40 CFR §258.10. The Advisory Circular states in Section 4-2(a):

"The Environmental Protection Agency [EPA] requires any MSWLF operator proposing a new or expanded waste disposal operation within 5 statute miles of a runway end to notify the appropriate FAA Regional Airports Division Office and the airport operator of the proposal (40 CFR 258, Criteria for Municipal Solid Waste Landfills, Section 258.10, Airport Safety). The EPA also requires owners or operators of new MSWLF units, or lateral expansions of existing MSWLF units, that are located within 10,000 feet of any airport runway end used by turbojet aircraft, or within 5,000 feet of any airport runway end used only by piston-type aircraft, to demonstrate successfully that such units are not hazards to aircraft."

According to the FAA Advisory Circular, Section 2-2(a), the East Oak RDF is an existing Municipal Solid Waste Landfill (MSWLF) having been established before April 5, 2001. As stated above, this facility is located over 10,000 feet from (but within 5 miles of) the nearest runway end of the Tinker Air Force Base. Therefore, the only requirement is to provide notification to the FAA and Tinker Air Force Base. However, Waste Management of Oklahoma, Inc. would like to request a potential for wildlife hazard determination. A wildlife hazard determination (FAA File No. 2014-001-OK) was previously completed for this site in 2014 as part of previous expansion permitting activities. FAA File No. 2014-001-OK indicated no objection to the previous expansion activities. A copy of FAA File No. 2014-001-OK is attached for reference.

Waste Management of Oklahoma, Inc. is being proactive toward controlling vectors at the East Oak RDF. East Oak RDF utilizes three methods to control vectors:

1. Working Face Size – The working face is confined to as small an area as practical. The working face is also covered at the end of each day.

2. Propane Cannon – A propane cannon is utilized throughout the day on a random sequence to scare away vectors. The random sequence is
programmed to occur more frequently in the early morning hours to try to prevent initial roosting of vectors.

(3) Pyrotechnical Launchers – A pyrotechnical launcher is utilized throughout the day to project pyrotechnical bird scare cartridges (aka bangers, screamers, whistlers, poppers, etc.) to scare away vectors.

These methods have been effective in deterring birds and other vectors from becoming a nuisance to the landfill and surrounding areas. The expansion to the landfill will not include any change to the current working face size or operating procedures. Therefore, expanding the landfill footprint will not result in attracting more vectors. Figure 2 comparing the permitted completion plan and the proposed completion plan is included in Attachment 2 for reference.

In summary, East Oak RDF is an existing active land disposal facility located within 5 miles of an airport. Per the OAC and EPA regulations, as well as the FAA Advisory Circular, this only requires notification to the FAA and the affected airport (i.e., Tinker Air Force Base). However, Waste Management of Oklahoma, Inc. would like to request a wildlife hazard determination. WCG will also upload information regarding the height of the expansion to the FAA online obstruction evaluation portal so that an aeronautical study can be performed.

Your assistance with this matter is sincerely appreciated. Please call if you have any questions or need additional information.

Sincerely,

Weaver Consultants Group, LLC

Crystal Alexander, G.I.T.
Staff Geologist

Attachments: Attachment 1 - FAA Airport Vicinity Map
Attachment 2 - Permitted Completion Plan and Proposed Completion Plan
Attachment 3 - FAA File No. 2014-001-OK

cc:
Guy R. Campbell, Waste Management of Oklahoma, Inc.
Pete Schultze, Waste Management of Oklahoma, Inc.
ATTACHMENT 1

FAA AIRPORT VICINITY MAP
July 21, 2014

Mr. Jonathan V. Queen, P.E.
Project Manager
Weaver Boos Consultants LLC Southwest
6420 Southwest Blvd, Suite 206
Fort Worth, TX 76109

Subject: East Oak Recycling and Disposal Facility Expansion
Waste Management of Oklahoma, Inc.,
Oklahoma City, Oklahoma
FAA File No. 2014-001-OK

Dear Mr. Queen:

This is in response to your April 9, 2014 notice of an application submitted by Weaver Boos Consultants in contract with Waste Management of Oklahoma, Inc., for a Tier II permit to expand the existing East Oak Waste Management and Disposal facility. The final proposed elevation of the facility is 731.5 and 736 feet above MSL.

Using coordinates representing the southernmost point of the proposed expansion area of N 35° 29’ 43.10” N and 97° 39’ 24.47.26” W, we determined that there are no privately owned or publically owned public use airports within 4.34 nautical miles/ 5 Statute miles of the landfill. With the landfill site being located outside of our 5 statute mile review criteria for existing landfills, we have no objection to the application submitted by Weaver Boos Consultants for the expansion of the East Oak Recycling and Disposal Facility. Our position of no objection is based on the application of our guidance for hazardous wildlife attractants on or near airports FAA Advisory Circular 150/5200-33B.

A copy of the application has been forwarded to Mr. Chris Shoulders Supervisor of the FAA Obstruction Evaluation Group for their review and comments concerning potential obstruction to air navigation.

This site has been assigned our file No. 2014-001-OK. Please refer to this number in any future correspondence regarding this site. Thank you for coordinating this project with us. If there are any questions, you can contact me at 817-222-5621 or bill.mitchell@faa.gov.
Sincerely,

[Signature]

William Mitchell
Lead Airport Certification Safety Inspector
Airports Division, Southwest Region

cc: Oklahoma Department of Environmental Quality
    Waste Management Division
    P.O. Box 1677
    Oklahoma City, OK 73101-1677

    Oklahoma Aeronautics Commission
    120 North Robinson Ave, Suite 1244W
    Oklahoma City, OK 73102

    Christopher P. Azzano, Col, USAF
    Commander, 72d Air Base Wing
    72 ABW/CC
    7460 Arnold Street
    Tinker AFB, OK 73145

    Mr. Chris Shoulders
    Supervisor Obstructions Evaluation Group
    AJV-15
APPENDIX D-2

ENDANGERED AND THREATENED SPECIES
CONTENTS

This appendix provides documentation for the required coordination with the Oklahoma Department of Wildlife Conservation and the Oklahoma Biological Survey. This appendix includes:

- April 23, 2019 Oklahoma Department of Wildlife conservation confirmation letter.
- February 12, 2019 Oklahoma Biological Survey Confirmation Letter.
- February 7, 2019 Weaver Consultants Group request for Oklahoma Department of Wildlife Conservation review.
- February 7, 2019 Weaver Consultants Group request for Oklahoma Biological Survey review.
Crystal Alexander  
Staff Geologist  
Weaver Consultants Group  
6420 Southwest Blvd, Suite 206  
Fort Worth, TX 76109

RE: Endangered or Threatened Wildlife Species Statement  
East Oak Recycling and Disposal Facility Expansion

Dear Ms. Alexander:

This letter is written in response to your request for information regarding threatened or endangered wildlife within one mile of the proposed facility expansion in Oklahoma City. Based upon the site description of this project, there are no species listed as species of STATE concern which may be at or near this location where improvements may be made.

Please understand that due to time and a personnel constraint, the Oklahoma Department of Wildlife Conservation has not performed an actual field survey of this specific project area; therefore, we can provide only limited site-specific information. The information sent to this office regarding the proposed project has been reviewed and compared against our current records for endangered and threatened species, and our response is based on this review. I will make note that there is a difference between STATE and FEDERALLY listed species. The Oklahoma Department of Wildlife Conservation only oversees STATE listed species, whereas the U.S. Fish and Wildlife Service reserves authority FEDERALLY listed species. For this reason, if you are concerned about species of federal interest, we urge you to consult with the Tulsa Ecological Service Office of the U.S. Fish and Wildlife Service (918-581-7458), as they may have additional information of which we are unaware.

We appreciate the opportunity to review this project and submit comments. If you have any questions, or if I can be of any assistance, please contact me at either (580)762-2248 or ashley.nealis@odwc.ok.gov

Sincerely,

Ashley Nealis  
North Central Region Fisheries Supervisor  
Oklahoma Department of Wildlife Conservation  
417 S. Silverdale Lane  
Ponca City, OK 74604
Dear Ms. Alexander,

Feb. 12, 2019

We have reviewed occurrence information on federal and state threatened, endangered or candidate species, as well as non-regulatory rare species and ecological systems of importance currently in the Oklahoma Natural Heritage Inventory database for the following location you provided:

Sec. 21-T12N-R2W, Oklahoma County

We found no occurrences of relevant species within the vicinity of the project location as described. However, absence from our database does not preclude such species from occurring in the area.

If you have any questions about this response, please send me an email, or call us at the number given below.

Although not specific to your project, you may find the following links helpful.

ONHI guide to ranking codes for endangered and threatened species: http://vmpincel.ou.edu/heritage/ranking_guide.html

Information regarding the Oklahoma Natural Areas Registry: http://www.oknaturalheritage.ou.edu/registry_faq.htm

Todd Fagin
Oklahoma Natural Heritage Inventory
(405) 325-4700
tfagin@ou.edu
J. D. Strong, Director
Oklahoma Department of Wildlife Conservation
1801 North Lincoln
Oklahoma City, Oklahoma 73105

Re: Endangered or Threatened Wildlife Species Statement
East Oak Recycling and Disposal Facility Expansion
Oklahoma City, Oklahoma

Dear Mr. Strong:

The purpose of this letter, submitted on behalf of Waste Management of Oklahoma, Inc., is to obtain endangered or threatened wildlife species information and demonstrate compatibility with Oklahoma Department of Environmental Quality (ODEQ) landfill location restriction regulation Oklahoma Administrative Code (OAC) §252:515-5-31(c). This regulation requires that a permit applicant for an expansion of a municipal solid waste landfill facility obtain a current information statement from the Oklahoma Department of Wildlife Conservation (ODWC).

The ODEQ landfill location restriction regulation set forth in §252:515-5-31(c), requires that a permit applicant for an expansion of a municipal solid waste facility obtain a statement from the ODWC regarding current information about endangered or threatened wildlife or plant species listed in state and federal laws that exist within one mile of the landfill permit boundary or expansion area. Weaver Consultants Group, LLC is preparing a landfill expansion application, under contract with Waste Management of Oklahoma, Inc., to expand their existing landfill (East Oak Recycling and Disposal Facility) located in the City of Oklahoma City, Oklahoma.

The proposed expansion areas were assessed by Goshawk Environmental Consulting, Inc. (Goshawk), an environmental services firm with experience in threatened and endangered species habitat assessment. Goshawk conducted an on-site field reconnaissance for endangered or threatened wildlife and plant species habitats. Goshawk's report concluded that the site does not provide habitat for and would not likely be occupied by any federal or state listed threatened and endangered species.

To assist you in your statement regarding threatened or endangered wildlife within one mile of the referenced project, please find attached a project summary, site location drawings, and the Goshawk report.
To verify compliance with §252:515-5-31(c), we will need to include a statement from the ODWC regarding current information about endangered or threatened wildlife or plant species listed in state and federal laws that exist within one mile of the landfill permit boundary or expansion area within the permit application.

Your assistance with this matter is sincerely appreciated. Please call if you have any questions or need additional information.

Sincerely,

Weaver Consultants Group, LLC

Crystal Alexander, G.I.T.
Staff Geologist

Attachments: Project Summary and Site Location Maps
Threatened and Endangered Species Review

cc: Guy R. Campbell, Waste Management of Oklahoma, Inc.
Pete Schultze, Waste Management of Oklahoma, Inc.
PROJECT SUMMARY AND
SITE LOCATION MAPS
Project Summary

East Oak Recycling and Disposal Facility Expansion
Waste Management of Oklahoma, Inc.
Oklahoma City, Oklahoma

Introduction

The East Oak Recycling and Disposal Facility is in the process of developing a Tier III Permit Modification to expand the existing landfill to provide long-term disposal capacity for municipal solid waste that is generated in the City of Oklahoma City, Oklahoma County, and the surrounding areas. The purpose of this summary is to provide an overview of the proposed landfill expansion. The site is located in Section Twenty-One (21) of Township Twelve North (T-12-N), Range Two West (R-2-W) of the Indian Meridian, City of Oklahoma City, Oklahoma. The following subsections detail information regarding the owner and operator of the site, general site information, and a summary of the proposed site design.

Owner/Operator Information

The East Oak Recycling and Disposal Facility is owned and operated by Waste Management of Oklahoma, Inc., a Waste Management, Inc. company. Waste Management, Inc. is an integrated solid waste services company that provides solid waste collection, transfer, disposal and recycling services and serves more than 20 million residential, commercial and industrial customers in North America.

Site Information

The following drawings are attached to this summary.

- Site Location Map (Figure 1). This figure shows the site location on a standard Oklahoma Department of Transportation Oklahoma County Highway Map.
- Aerial Photograph (Figure 2). This figure shows the existing recycling and disposal facility and permitted waste disposal area, as well as the proposed expansion area, on a recent aerial photograph.
- Permitted Completion Plan and Proposed Completion Plan (Figure 3). This figure shows the permitted landfill completion plan and the proposed landfill completion plan on detailed site topographic maps.
The East Oak Recycling and Disposal Facility is located approximately 8 miles east of downtown Oklahoma City and is accessed from NE 36th Street approximately 2.5 miles east of Interstate Highway 35. The address of the site is 3201 Mosley Road, Oklahoma City, OK 73141. The service area includes the City of Oklahoma City, Oklahoma County, and other surrounding areas. The facility has operated under Oklahoma Department of Environmental Quality (ODEQ) Permit No. 3555036 since 1986.

**Design Summary**

The following information presents a summary of the design and operations for the proposed East Oak Recycling and Disposal Facility expansion.

- The existing permit boundary will expand from approximately 282.96 acres to a proposed 420 acres. The waste disposal area will increase from approximately 191.8 acres to 236 acres.

- Accepted wastes will remain consistent with the current municipal solid waste landfill permit. The facility will accept municipal solid waste, construction and demolition wastes, non-hazardous industrial waste, encapsulated asbestos waste, vegetative waste, semi-solid waste, and sludges as permitted by the ODEQ.

- Access to the site will be provided via the existing site access road from NE 36th Street. Based on traffic patterns of existing landfill traffic, most vehicles bound for the landfill will access the site using NE 36th Street from Interstate Highway 35. The existing roads are capable of handling the traffic load associated with the landfill.

- A liner and final cover system that meets all regulatory requirements will be used for the solid waste containment system. The design objective of the containment system (final cover, liner, and leachate management system) is to isolate the solid waste and remove leachate (defined as liquid that has contacted solid waste) that collects on the liner system. Leachate that is removed from the landfill will be discharged offsite to the Oklahoma City Publicly Owned Treatment Works (POTW) in accordance with the Oklahoma City Industrial Wastewater Treatment/Disposal Permit No. 2865. The construction procedures of the liner and final cover systems follow strict ODEQ approved quality control and quality assurance procedures, which are verified by an independent testing firm. Each of the containment system components must be thoroughly reviewed and approved by the ODEQ before solid waste is placed in the landfill.

- To verify that the highest levels of environmental protection are maintained, the following landfill monitoring systems are provided:
  - Groundwater Monitoring System. The purpose of the groundwater monitoring system is to verify the integrity of the containment system.
and verify that groundwater is not adversely impacted by the landfill. This is accomplished by obtaining water samples from the monitor wells, located on the perimeter of the landfill, which are screened in the uppermost saturated zone to monitor groundwater quality. The water samples are tested at an off-site laboratory.

- Landfill Gas Monitoring System. The purpose of the landfill gas monitoring system is to verify the integrity of the containment system and verify that methane gas, produced from the decomposing waste material, has not migrating beyond the permit boundary. This is accomplished by obtaining subsurface air samples from the landfill gas probes, located on the perimeter of the landfill, which are screened across potential migration pathways. The samples are tested on-site with a portable landfill gas analyzer.

- These monitoring systems are sampled and tested periodically. The results are filed with the ODEQ and are public record.

- Site Operations. Properly trained personnel will operate the site. A detailed site operating plan will be included in the landfill expansion permit application. The plan will detail the required equipment, personnel, and safety procedures required to operate the site in accordance with ODEQ regulations. The site will continue to provide solid waste disposal service six days a week and the active landfill area will be covered at the end of each workday to prevent potential nuisance conditions such as odors and vectors. The East Oak Recycling and Disposal Facility will continue to be inspected by the ODEQ on a regular basis to ensure the site is in compliance with state regulations.
THREATENED AND ENDANGERED SPECIES REVIEW
2 July 2018

Mr. Jonathan Queen
Weaver Consultants Group
6420 Southwest Blvd., Suite 206
Fort Worth, TX 76109

Re: Threatened and Endangered Species Review
East Oak Recycling and Disposal Facility (RDF) Southwest Expansion Area
Oklahoma County, Oklahoma

Dear Mr. Queen:

This letter provides the results of a Threatened and Endangered (T/E) Species Habitat Assessment conducted by Goshawk Environmental Consulting, Inc. (Goshawk) on the East Oak Recycling and Disposal Facility (RDF) Southwest Expansion Area in Oklahoma County, Oklahoma. Primary land use on this site was historically sand mining, however, mining has ceased, and the site is not currently used for any particular purpose. The T/E assessment included a literature review and field investigation.

Site Description
The proposed East Oak RDF Southwest Expansion Area is situated in the northeastern portion of Oklahoma City within Section 21 of Township 12N, Range 2W, 2.3 miles east of Interstate 35. Generally, the site is located 2.3 miles east of Interstate Highway 35 along the north side of US Highway 62 and east side of North Sooner Road. The irregularly-shaped site is approximately 2,550 feet east-west and 2,600 feet north-south, totaling approximately 136 acres. The site is within the North Canadian River watershed which is located approximately 700 feet to the west.

Literature Review
Literature and agency file searches were conducted to identify the potential occurrence of any federally listed T/E species or potential habitat on the East Oak RDF Southwest Expansion Area. The review included the US Fish and Wildlife Service (USFWS) Information, Planning, and Conservation System (IPAC) T/E species list, along with the Oklahoma Natural Heritage Inventory (ONHI) database county listing.

An internet search of IPAC was conducted to identify the potential occurrence of any federally listed T/E species or potential habitat on the proposed site. The species listed for Oklahoma County (list attached) include the Arkansas River shiner (Notropis girardi), least tern (Sterna antillarum), piping plover (Charadrius melodus), red knot (Calidris canutus), and whooping crane (Grus americana). No critical habitat is indicated for any of the potential species for the site or immediately surrounding areas.

The ONHI website identifies the federal and state endangered, threatened, and candidate species, as well as non-regulatory rare species with potential to occur in Oklahoma County. Those species are the Texas horned lizard (Phrynosoma cornutum), bald eagle (Haliaeetus leucocephalus), least
tern, barn owl (Tyto alba), black-capped vireo (Vireo atricapillus), and woodchuck (Marmota monax). The ONHI database includes documented occurrences of federal and state endangered, threatened, and candidate species, as well as non-regulatory rare species. A request to the ONHI returned “one occurrence of relevant species,” bald eagle (Haliaeetus leucocephalus), within Section 2, Township 12N, Range 2W (letter dated 25 May 2018 attached). This occurrence is at least 3 miles northeast of the East Oak RDF Southwest Expansion Area.

Field Investigation
Goshawk conducted a field investigation on 6 March 2018. The site was traversed on-foot to assess the potential for T/E species habitat. The site appears to be an abandoned sand mine where two large water bodies, separated by an upland landform, remain. The western portion of the site appears to have been the headquarters of the operation. Several linear pits remain along the eastern boundary of the site. The only remaining native portions of the site occur within the southeastern corner.

The two water bodies are surrounded by steep side slopes with the exception of the dividing upland landform, which has gradual side slopes. Vegetation along the slopes consists of Johnson grass (Sorghum halepense), common sunflower (Helianthus annuus), saw-leaved daisy (Grindelia papposa), black willow (Salix nigra), and cottonwood (Populus deltoides). The western portions of the site where sand mine operations were managed appears to be a relatively open area with large portions of bare ground. Vegetation within this area is limited to early successional grasses, primarily Johnson grass, and forbs. Vegetation within the linear pits appears to be dependent on water level. Species noted within the wetter portions of the pits include smartweed (Polygonum sp.), rush (Juncus sp.), cocklebur (Xanthium spinosum), and fleabane (Pluchea odorata). Drier portions of the pits and the adjacent side slopes are dominated by Johnson grass and common sunflower. The unimpacted southeastern portion of the site is dominated by woodlands, which consist of American elm (Ulmus americana), hackberry (Celtis laevigata), cottonwood, black willow, bedstraw (Gailium aparine), Virginia creeper (Parthenocissus quinquefolia), and greenbrier (Smilax bona-nox).

None of the listed T/E species were observed on the site during the field investigation. Additionally, none of the on-site vegetation types exhibit the characteristics necessary for occupation by any of the listed species.

Habitat Suitability Findings
The following is a brief description of each of the listed species’ preferred habitat and an evaluation of the habitat suitability of the site based on these preferences.

Arkansas River Shiner
The Arkansas River shiner historically occurred in wide, sandy-bottomed streams of the Arkansas River drainage. Its current range is believed to be restricted to portions of the Canadian, North Canadian, South Canadian, Cimarron, and Beaver rivers. The shiner feeds primarily on aquatic invertebrates and typically breeds between May and July during higher flows. Although the North Canadian River is in close proximity to the proposed site, the site contains isolated water bodies, which is not a preferred habitat for the Arkansas River Shiner. The site will be designed and
managed according to current state regulations, which will prevent any contamination of surface water in the North Canadian River. No impacts to the Arkansas River shiner are anticipated.

**Least Tern**
The least tern primarily feeds on fish within shallow water areas of rivers, streams, and lakes. This species nests on bare or sparsely vegetated beaches, sandbars, and islands composed of sand, shell, and/or gravel, usually within major rivers and reservoirs. Although the on-site water bodies may attract the least tern, there is little to no sparsely vegetated areas along the water bodies. The tern would likely not utilize the proposed site due to their preference for wide channels dotted with sandbars. Least terns would more likely be found along the North Canadian River. Site development would not impact potential habitat along the North Canadian River; therefore, no impacts to the least tern are anticipated.

**Piping Plover**
The piping plover is a migratory species that winters along the Gulf Coast and nests around the Great Lakes and along the upper Atlantic Coast. It primarily inhabits sandy beaches and lakeshores and migrates along the major river systems. The piping plover mainly migrates through Oklahoma; however, they may occasionally nest along major rivers within the state. Use of the North Canadian River by the piping plover may be possible; however, the lack of suitable habitat on-site, coupled with the amount of industrial activity within the general vicinity, would likely preclude the plover from utilizing the East Oak RDF Southwest Expansion Area.

**Red Knot**
The red knot is a migratory shore bird that breeds in the Arctic regions of Canada and winters along the coast of the US and South America. Although the red knot relies mostly on shoreline habitats, stopover areas along the migration route can provide important feeding grounds for refueling. There are no known migration staging areas near the proposed site.

**Whooping Crane**
The whooping crane is migratory and passes through Oklahoma on its migration route between the Texas coast and southern Canada. It may occasionally stop at points along the way that provide temporary feeding or resting habitat, such as large wetlands, playa lakes, or agricultural fields. Although the site contains two large water bodies, the level of disturbance of the area and the lack of short vegetation would likely preclude the whooping crane from utilizing the site.

**Texas Horned Lizard**
The Texas horned lizard utilizes open, arid, and semi-arid regions with sparse vegetation, including grass, cactus, scattered brush, or scrubby trees. The Texas horned lizard burrows into soil, enters rodent burrows, or hides under rocks when inactive. Because the site primarily contains water bodies and has been significantly disturbed in the past, the Texas horned lizard is not likely to occur.

**Bald Eagle**
The bald eagle was de-listed from the federal T/E species list; however, bald eagles are protected by the Bald and Golden Eagle Protection Act and the Migratory Bird Treaty Act (MBTA). Bald eagles
are typically associated with aquatic habitats (coastal areas, large rivers, lakes, and reservoirs) with forested shorelines or cliffs. They select large canopy roost trees that are open and easily accessible, constructing large nests that are returned to and utilized each year. The close proximity of the North Canadian River to the proposed site, the large water bodies within the site, and the forested areas around the edge of the site create a relatively ideal habitat for bald eagles. However, the adjacent industrial activities and landfill development in the vicinity of the site and the lack of large trees for roosting likely preclude its use by the bald eagle.

Barn Owl
Barn owls typically require large areas of pasture, grasslands, or wet meadows for feeding on small mammals. They utilize hollows or cavities in trees for nesting, but as their name suggests, often utilize man-made structures (like barns) for nesting. The vegetative community, along with the lack of hollows, cavities, and buildings likely preclude the site's use by the barn owl.

Black-Capped Vireo
The black-capped vireo was de-listed from the federal T/E species list in 2018. The black-capped vireo requires low-growing (typically less than 8 feet in height), dense shrub habitat. Although the vegetative species composition can vary, some deciduous broad-leaved species are necessary. The site does not contain any low-growing dense shrub habitat typically utilized by the black capped vireo. The black-capped vireo would not occupy the proposed site.

Woodchuck
The woodchuck typically utilizes edge habitats, areas where woodlands meet open fields. Woodchucks build burrows, which they use for protection, hibernation, and rearing young. They primarily feed on herbaceous vegetation but can occasionally consume tree bark. Despite the presence of the woodland vegetation along the boundaries of the site, this vegetative type is not extensive enough to adequately support the woodchuck. It is unlikely that the woodchuck would occupy the proposed site.

SUMMARY
Based on this assessment, it is Goshawk’s opinion that the East Oak RDF Southwest Expansion Area does not provide habitat for, and would not likely be occupied by, any federally listed T/E species. While it is possible that the migratory bird species would utilize the site during migration, use would be transitory in nature and of short duration. Lack of suitable habitat makes the occurrence of the migratory species highly unlikely.

Sincerely,

Natasha Mitchell
Environmental Specialist
USFWS IPaC Resource List
IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as trust resources) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Location
Oklahoma County, Oklahoma

Local office
Oklahoma Ecological Services Field Office

📞 (918) 581-7458
ディング (918) 581-7467

9014 East 21st Street
Tulsa, OK 74129-1428

http://www.fws.gov/southwest/es/Oklahoma/
Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population, even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act requires Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can only be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species

and their critical habitats are managed by the Ecological Services Program of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries). Species and critical habitats under the sole responsibility of NOAA Fisheries are not shown on this list. Please contact NOAA Fisheries for species under their jurisdiction.

1. Species listed under the Endangered Species Act are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the listing status page for more information.
2. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:
Birds

NAME

Least Tern  Sterna antillarum
This species only needs to be considered if any of the following conditions apply:
• Wind Turbines and Wind Farms
• Towers (i.e. radio, television, cellular, microwave, meteorological)

No critical habitat has been designated for this species.
https://ecos.fws.gov/ecp/species/8505

Piping Plover  Charadrius melodus
There is final critical habitat for this species. Your location is outside the critical habitat.
https://ecos.fws.gov/ecp/species/6039

Red Knot  Calidris canutus rufa
No critical habitat has been designated for this species.
https://ecos.fws.gov/ecp/species/1864

Whooping Crane  Grus americana
There is final critical habitat for this species. Your location is outside the critical habitat.
https://ecos.fws.gov/ecp/species/758

Fishes

NAME

Arkansas River Shiner  Notropis girardi
There is final critical habitat for this species. Your location is outside the critical habitat.
https://ecos.fws.gov/ecp/species/4364

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

THERE ARE NO CRITICAL HABITATS AT THIS LOCATION.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act
and the Bald and Golden Eagle Protection Act.
Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described below.

2. The Bald and Golden Eagle Protection Act of 1940.

Additional information can be found using the following links:

- **Measures for avoiding and minimizing impacts to birds**
- **Nationwide conservation measures for birds**

The birds listed below are birds of particular concern either because they occur on the USFWS Birds of Conservation Concern (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ below. This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the [E-bird data mapping tool](http://www.ebird.org) (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found below.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the **PROBABILITY OF PRESENCE SUMMARY** at the top of your list to see when these birds are most likely to be present and breeding in your project area.
American Golden-plover  Pluvialis dominica
  This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Bald Eagle  Haliaeetus leucocephalus
  This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.
  https://ecos.fws.gov/ecp/species/1626

Buff-breasted Sandpiper  Calidris subruficollis
  This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
  https://ecos.fws.gov/ecp/species/9488

Chestnut-collared Longspur  Calcarius ornatus
  This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Harris's Sparrow  Zonotrichia querula
  This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Hudsonian Godwit  Limosa haemastica
  This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Lesser Yellowlegs  Tringa flavipes
  This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
  https://ecos.fws.gov/ecp/species/9679

Breeding season (if a breeding season is indicated for a bird on your list, the bird may breed in your project area sometime within the timeframe specified, which is a very liberal estimate of the dates inside which the bird breeds across its entire range. "Breeds elsewhere" indicates that the bird does not likely breed in your project area.)

Breeds elsewhere

Breeds Sep 1 to Jul 31

Breeds elsewhere

Breeds elsewhere

Breeds elsewhere

Breeds elsewhere
Long-billed Curlew  Numenius americanus  
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.  
https://ecos.fws.gov/ecp/species/5511

Marbled Godwit  Limosa fedoa  
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.  
https://ecos.fws.gov/ecp/species/9481

Red-headed Woodpecker  Melanerpes erythrocephalus  
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Semipalmated Sandpiper  Calidris pusilla  
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Smith's Longspur  Calcarius pictus  
This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA.

Whimbrel  Numenius phaeopus  
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.  
https://ecos.fws.gov/ecp/species/9483

Willet  Tringa semipalmata  
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Breeds Apr 1 to Jul 31

Breeds elsewhere

Breeds May 10 to Sep 10

Breeds elsewhere

Breeds elsewhere

Breeds elsewhere

Breeds Apr 20 to Aug 5

Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

Nationwide Conservation Measures describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. Additional measures and/or permits may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the migratory birds potentially occurring in my specified location?

The Migratory Bird Resource List is comprised of USFWS Birds of Conservation Concern (BCC) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects,
and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (Eagle Act requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the E-bird Explore Data Tool.

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the Avian Knowledge Network (AKN). This data is derived from a growing collection of survey, banding, and citizen science datasets.

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering, migrating or present year-round in my project area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may refer to the following resources: The Cornell Lab of Ornithology All About Birds Bird Guide, or (if you are unsuccessful in locating the bird of interest there), the Cornell Lab of Ornithology Neotropical Birds guide. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are Birds of Conservation Concern (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the Eagle Act requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the Northeast Ocean Data Portal. The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf project webpage.
Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the Diving Bird Study and the Nanotag studies or contact Caleb Spiegel or Pam Loring.

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ “What does IPaC use to generate the migratory birds potentially occurring in my specified location”. Please be aware this report provides the “probability of presence” of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the “no data” indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ “Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds” at the bottom of your migratory bird trust resources page.

Facilities

Wildlife refuges and fish hatcheries

REFUGE AND FISH HATCHERY INFORMATION IS NOT AVAILABLE AT THIS TIME

Wetlands in the National Wetlands Inventory

Impacts to NWI wetlands and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

This location overlaps the following wetlands:
The area of this project is too large for IPaC to load all NWI wetlands in the area. The list below may be incomplete. Please contact the local U.S. Fish and Wildlife Service office or visit the NWI map for a full list.

**FRESHWATER EMERGENT WETLAND**
- PEM1Fe
- PEM1Ch
- PEM1F
- PEM1Ah
- PEM1Fx

**FRESHWATER FORESTED/SHRUB WETLAND**
- PFO1C
- PSC1/UBF

**FRESHWATER POND**
- PUBHh
- PUBHf
- PUSCh
- PUBFx
- PUSCx
- PUBH
- PUBHx
- PUSAh
- PUSAx
- PUSC
- PUSA

**RIVERINE**
- R2USC

A full description for each wetland code can be found at the National Wetlands Inventory website.

**Data limitations**

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

**Data exclusions**
Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tubercled worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.
Oklahoma Natural Heritage Inventory
May 25, 2018

Dear Ms. Mitchell,

We have reviewed occurrence information on federal and state threatened, endangered or candidate species, as well as non-regulatory rare species and ecological systems of importance currently in the Oklahoma Natural Heritage Inventory database for the following location you provided:

Sec. 21-T12N-R2W, Oklahoma County

We found 1 occurrence(s) of relevant species within the vicinity of the project location as described.

Bald Eagle (*Haliaeetus leucocephalus*), a federally protected species, one occurrence in Sec. 2-T12N-R2W, Oklahoma County

Additionally, absence from our database does not preclude such species from occurring in the area.

If you have any questions about this response, please send me an email, or call us at the number given below.

Although not specific to your project, you may find the following links helpful.

ONHI, guide to ranking codes for endangered and threatened species:
[http://vmpleincol.ou.edu/heritage/ranking_guide.html](http://vmpleincol.ou.edu/heritage/ranking_guide.html)

Information regarding the Oklahoma Natural Areas Registry:
[http://www.oknaturalheritage.ou.edu/registry_faq.htm](http://www.oknaturalheritage.ou.edu/registry_faq.htm)

Todd Fagin
Oklahoma Natural Heritage Inventory
(405) 325-4700
tfagin@ou.edu
Jeff Kelly, Biological Survey Director  
Oklahoma Biological Survey  
111 East Chesapeake Street  
Norman, Oklahoma 73019-5112  

Re: Endangered or Threatened Wildlife Species Statement  
East Oak Recycling and Disposal Facility Expansion  
Oklahoma City, Oklahoma  

Dear Mr. Kelly:  

The purpose of this letter, submitted on behalf of Waste Management of Oklahoma, Inc., is to obtain endangered or threatened wildlife species information and demonstrate compatibility with Oklahoma Department of Environmental Quality (ODEQ) landfill location restriction regulation Oklahoma Administrative Code (OAC) §252:515-5-31(c). This regulation requires that a permit applicant for an expansion of a municipal solid waste landfill facility obtain a current information statement from the Oklahoma Biological Survey (OBS).  

The ODEQ landfill location restriction regulation set forth in §252:515-5-31(c), requires that a permit applicant for an expansion of a municipal solid waste facility obtain a statement from the OBS regarding current information about endangered or threatened wildlife or plant species listed in state and federal laws that exist within one mile of the landfill permit boundary or expansion area. Weaver Consultants Group, LLC is preparing a landfill expansion application, under contract with Waste Management of Oklahoma, Inc., to expand their existing landfill (East Oak Recycling and Disposal Facility) located in the City of Oklahoma City, Oklahoma.  

The proposed expansion areas were assessed by Goshawk Environmental Consulting, Inc. (Goshawk), an environmental services firm with experience in threatened and endangered species habitat assessment. Goshawk conducted an on-site field reconnaissance for endangered or threatened wildlife and plant species habitats. Goshawk’s report concluded that the site does not provide habitat for and would not likely be occupied by any federal or state listed threatened and endangered species.  

To assist you in your statement regarding threatened or endangered wildlife within one mile of the referenced project, please find attached a project summary, site location drawings, and the Goshawk report.
To verify compliance with §252:515-5-31(c), we will need to include a statement from the OBS regarding current information about endangered or threatened wildlife or plant species listed in state and federal laws that exist within one mile of the landfill permit boundary or expansion area within the permit application.

Your assistance with this matter is sincerely appreciated. Please call if you have any questions or need additional information.

Sincerely,

Weaver Consultants Group, LLC

Crystal Alexander, G.I.T.
Staff Geologist

Attachments:  Project Summary and Site Location Maps
              Threatened and Endangered Species Review

cc:        Guy R. Campbell, Waste Management of Oklahoma, Inc.
           Pete Schultze, Waste Management of Oklahoma, Inc.
PROJECT SUMMARY AND
SITE LOCATION MAPS
Project Summary

East Oak Recycling and Disposal Facility Expansion
Waste Management of Oklahoma, Inc.
Oklahoma City, Oklahoma

Introduction

The East Oak Recycling and Disposal Facility is in the process of developing a Tier III Permit Modification to expand the existing landfill to provide long-term disposal capacity for municipal solid waste that is generated in the City of Oklahoma City, Oklahoma County, and the surrounding areas. The purpose of this summary is to provide an overview of the proposed landfill expansion. The site is located in Section Twenty-One (21) of Township Twelve North (T-12-N), Range Two West (R-2-W) of the Indian Meridian, City of Oklahoma City, Oklahoma. The following subsections detail information regarding the owner and operator of the site, general site information, and a summary of the proposed site design.

Owner/Operator Information

The East Oak Recycling and Disposal Facility is owned and operated by Waste Management of Oklahoma, Inc., a Waste Management, Inc. company. Waste Management, Inc. is an integrated solid waste services company that provides solid waste collection, transfer, disposal and recycling services and serves more than 20 million residential, commercial and industrial customers in North America.

Site Information

The following drawings are attached to this summary.

- Site Location Map (Figure 1). This figure shows the site location on a standard Oklahoma Department of Transportation Oklahoma County Highway Map.
- Aerial Photograph (Figure 2). This figure shows the existing recycling and disposal facility and permitted waste disposal area, as well as the proposed expansion area, on a recent aerial photograph.
- Permitted Completion Plan and Proposed Completion Plan (Figure 3). This figure shows the permitted landfill completion plan and the proposed landfill completion plan on detailed site topographic maps.
The East Oak Recycling and Disposal Facility is located approximately 8 miles east of downtown Oklahoma City and is accessed from NE 36th Street approximately 2.5 miles east of Interstate Highway 35. The address of the site is 3201 Mosley Road, Oklahoma City, OK 73141. The service area includes the City of Oklahoma City, Oklahoma County, and other surrounding areas. The facility has operated under Oklahoma Department of Environmental Quality (ODEQ) Permit No. 3555036 since 1986.

**Design Summary**

The following information presents a summary of the design and operations for the proposed East Oak Recycling and Disposal Facility expansion.

- The existing permit boundary will expand from approximately 282.96 acres to a proposed 420 acres. The waste disposal area will increase from approximately 191.8 acres to 236 acres.

- Accepted wastes will remain consistent with the current municipal solid waste landfill permit. The facility will accept municipal solid waste, construction and demolition wastes, non-hazardous industrial waste, encapsulated asbestos waste, vegetative waste, semi-solid waste, and sludges as permitted by the ODEQ.

- Access to the site will be provided via the existing site access road from NE 36th Street. Based on traffic patterns of existing landfill traffic, most vehicles bound for the landfill will access the site using NE 36th Street from Interstate Highway 35. The existing roads are capable of handling the traffic load associated with the landfill.

- A liner and final cover system that meets all regulatory requirements will be used for the solid waste containment system. The design objective of the containment system (final cover, liner, and leachate management system) is to isolate the solid waste and remove leachate (defined as liquid that has contacted solid waste) that collects on the liner system. Leachate that is removed from the landfill will be discharged offsite to the Oklahoma City Publicly Owned Treatment Works (POTW) in accordance with the Oklahoma City Industrial Wastewater Treatment/Disposal Permit No. 2865. The construction procedures of the liner and final cover systems follow strict ODEQ approved quality control and quality assurance procedures, which are verified by an independent testing firm. Each of the containment system components must be thoroughly reviewed and approved by the ODEQ before solid waste is placed in the landfill.

- To verify that the highest levels of environmental protection are maintained, the following landfill monitoring systems are provided:
  - Groundwater Monitoring System. The purpose of the groundwater monitoring system is to verify the integrity of the containment system.
and verify that groundwater is not adversely impacted by the landfill. This is accomplished by obtaining water samples from the monitor wells, located on the perimeter of the landfill, which are screened in the uppermost saturated zone to monitor groundwater quality. The water samples are tested at an off-site laboratory.

- Landfill Gas Monitoring System. The purpose of the landfill gas monitoring system is to verify the integrity of the containment system and verify that methane gas, produced from the decomposing waste material, has not migrating beyond the permit boundary. This is accomplished by obtaining subsurface air samples from the landfill gas probes, located on the perimeter of the landfill, which are screened across potential migration pathways. The samples are tested on-site with a portable landfill gas analyzer.

- These monitoring systems are sampled and tested periodically. The results are filed with the ODEQ and are public record.

- Site Operations. Properly trained personnel will operate the site. A detailed site operating plan will be included in the landfill expansion permit application. The plan will detail the required equipment, personnel, and safety procedures required to operate the site in accordance with ODEQ regulations. The site will continue to provide solid waste disposal service six days a week and the active landfill area will be covered at the end of each workday to prevent potential nuisance conditions such as odors and vectors. The East Oak Recycling and Disposal Facility will continue to be inspected by the ODEQ on a regular basis to ensure the site is in compliance with state regulations.
NOTES:
1. ADAPTED FROM USGS 7.5 MINUTE QUADRANGLE TOPOGRAPHIC MAP (SPENCER AND MIDWEST CITY, OKLAHOMA, 2012).
2. THIS MAP AREA SHOWN IS WITHIN TOWNSHIP 12 NORTH, RANGE 2 WEST.

LEGEND
- - - EXISTING PERMIT BOUNDARY
--- PROPOSED PERMIT BOUNDARY

WASTE MANAGEMENT OF OKLAHOMA, INC.
EAST OAK RFD
OKLAHOMA COUNTY, OKLAHOMA
WWW.WCGRP.COM  FIGURE 2
THREATENED AND ENDANGERED SPECIES REVIEW
2 July 2018

Mr. Jonathan Queen
Weaver Consultants Group
6420 Southwest Blvd., Suite 206
Fort Worth, TX 76109

Re: Threatened and Endangered Species Review
East Oak Recycling and Disposal Facility (RDF) Southwest Expansion Area
Oklahoma County, Oklahoma

Dear Mr. Queen:

This letter provides the results of a Threatened and Endangered (T/E) Species Habitat Assessment conducted by Goshawk Environmental Consulting, Inc. (Goshawk) on the East Oak Recycling and Disposal Facility (RDF) Southwest Expansion Area in Oklahoma County, Oklahoma. Primary land use on this site was historically sand mining, however, mining has ceased, and the site is not currently used for any particular purpose. The T/E assessment included a literature review and field investigation.

Site Description
The proposed East Oak RDF Southwest Expansion Area is situated in the northeastern portion of Oklahoma City within Section 21 of Township 12N, Range 2W, 2.3 miles east of Interstate 35. Generally, the site is located 2.3 miles east of Interstate Highway 35 along the north side of US Highway 62 and east side of North Sooner Road. The irregularly-shaped site is approximately 2,550 feet east-west and 2,600 feet north-south, totaling approximately 136 acres. The site is within the North Canadian River watershed which is located approximately 700 feet to the west.

Literature Review
Literature and agency file searches were conducted to identify the potential occurrence of any federally listed T/E species or potential habitat on the East Oak RDF Southwest Expansion Area. The review included the US Fish and Wildlife Service (USFWS) Information, Planning, and Conservation System (IPAC) T/E species list, along with the Oklahoma Natural Heritage Inventory (ONHI) database county listing.

An internet search of IPAC was conducted to identify the potential occurrence of any federally listed T/E species or potential habitat on the proposed site. The species listed for Oklahoma County (list attached) include the Arkansas River shiner (Notropis girardi), least tern (Sternula antillarum), piping plover (Charadrius melodus), red knot (Calidris canutus), and whooping crane (Grus americana). No critical habitat is indicated for any of the potential species for the site or immediately surrounding areas.

The ONHI website identifies the federal and state endangered, threatened, and candidate species, as well as non-regulatory rare species with potential to occur in Oklahoma County. Those species are the Texas horned lizard (Phrynosoma cornutum), bald eagle (Haliaeetus leucocephalus), least
tern, barn owl (*Tyto alba*), black-capped vireo (*Vireo atricapillus*), and woodchuck (*Marmota monax*). The ONHI database includes documented occurrences of federal and state endangered, threatened, and candidate species, as well as non-regulatory rare species. A request to the ONHI returned “one occurrence of relevant species,” bald eagle (*Haliaeetus leucocephalus*), within Section 2, Township 12N, Range 2W (letter dated 25 May 2018 attached). This occurrence is at least 3 miles northeast of the East Oak RDF Southwest Expansion Area.

**Field Investigation**

Goshawk conducted a field investigation on 6 March 2018. The site was traversed on-foot to assess the potential for T/E species habitat. The site appears to be an abandoned sand mine where two large water bodies, separated by an upland landform, remain. The western portion of the site appears to have been the headquarters of the operation. Several linear pits remain along the eastern boundary of the site. The only remaining native portions of the site occur within the southeastern corner.

The two water bodies are surrounded by steep side slopes with the exception of the dividing upland landform, which has gradual side slopes. Vegetation along the slopes consists of Johnson grass (*Sorghum halepense*), common sunflower (*Helianthus annuus*), saw-leaved daisy (*Grindelia papposa*), black willow (*Salix nigra*), and cottonwood (*Populus deltoides*). The western portions of the site where sand mine operations were managed appears to be a relatively open area with large portions of bare ground. Vegetation within this area is limited to early successional grasses, primarily Johnson grass, and forbs. Vegetation within the linear pits appears to be dependent on water level. Species noted within the wetter portions of the pits include smartweed (*Polygonum sp.*), rush (*Juncus sp.*), cocklebur (*Xanthium spinosum*), and fleabane (*Pluchea odorata*). Drier portions of the pits and the adjacent side slopes are dominated by Johnson grass and common sunflower. The unimpacted southeastern portion of the site is dominated by woodlands, which consist of American elm (*Ulmus americana*), hackberry (*Celtis laevigata*), cottonwood, black willow, bedstraw (*Galium aparine*), Virginia creeper (*Parthenocissus quinquefolia*), and greenbrier (*Smilax bona-nox*).

None of the listed T/E species were observed on the site during the field investigation. Additionally, none of the on-site vegetation types exhibit the characteristics necessary for occupation by any of the listed species.

**Habitat Suitability Findings**

The following is a brief description of each of the listed species’ preferred habitat and an evaluation of the habitat suitability of the site based on these preferences.

**Arkansas River Shiner**

The Arkansas River shiner historically occurred in wide, sandy-bottomed streams of the Arkansas River drainage. Its current range is believed to be restricted to portions of the Canadian, North Canadian, South Canadian, Cimarron, and Beaver rivers. The shiner feeds primarily on aquatic invertebrates and typically breeds between May and July during higher flows. Although the North Canadian River is in close proximity to the proposed site, the site contains isolated water bodies, which is not a preferred habitat for the Arkansas River Shiner. The site will be designed and
managed according to current state regulations, which will prevent any contamination of surface water in the North Canadian River. No impacts to the Arkansas River shiner are anticipated.

Least Tern
The least tern primarily feeds on fish within shallow water areas of rivers, streams, and lakes. This species nests on bare or sparsely vegetated beaches, sandbars, and islands composed of sand, shell, and/or gravel, usually within major rivers and reservoirs. Although the on-site water bodies may attract the least tern, there is little to no sparsely vegetated areas along the water bodies. The tern would likely not utilize the proposed site due to their preference for wide channels dotted with sandbars. Least terns would more likely be found along the North Canadian River. Site development would not impact potential habitat along the North Canadian River, therefore, no impacts to the least tern are anticipated.

Piping Plover
The piping plover is a migratory species that winters along the Gulf Coast and nests around the Great Lakes and along the upper Atlantic Coast. It primarily inhabits sandy beaches and lakeshores and migrates along the major river systems. The piping plover mainly migrates through Oklahoma; however, they may occasionally nest along major rivers within the state. Use of the North Canadian River by the piping plover may be possible; however, the lack of suitable habitat on-site, coupled with the amount of industrial activity within the general vicinity, would likely preclude the plover from utilizing the East Oak RDF Southwest Expansion Area.

Red Knot
The red knot is a migratory shore bird that breeds in the Arctic regions of Canada and winters along the coast of the US and South America. Although the red knot relies mostly on shoreline habitats, stopover areas along the migration route can provide important feeding grounds for refueling. There are no known migration staging areas near the proposed site.

Whooping Crane
The whooping crane is migratory and passes through Oklahoma on its migration route between the Texas coast and southern Canada. It may occasionally stop at points along the way that provide temporary feeding or resting habitat, such as large wetlands, playa lakes, or agricultural fields. Although the site contains two large water bodies, the level of disturbance of the area and the lack of short vegetation would likely preclude the whooping crane from utilizing the site.

Texas Horned Lizard
The Texas horned lizard utilizes open, arid, and semi-arid regions with sparse vegetation, including grass, cactus, scattered brush, or scrubby trees. The Texas horned lizard burrows into soil, enters rodent burrows, or hides under rocks when inactive. Because the site primarily contains water bodies and has been significantly disturbed in the past, the Texas horned lizard is not likely to occur.

Bald Eagle
The bald eagle was de-listed from the federal T/E species list; however, bald eagles are protected by the Bald and Golden Eagle Protection Act and the Migratory Bird Treaty Act (MBTA). Bald eagles
are typically associated with aquatic habitats (coastal areas, large rivers, lakes, and reservoirs) with forested shorelines or cliffs. They select large canopy roost trees that are open and easily accessible, constructing large nests that are returned to and utilized each year. The close proximity of the North Canadian River to the proposed site, the large water bodies within the site, and the forested areas around the edge of the site create a relatively ideal habitat for bald eagles. However, the adjacent industrial activities and landfill development in the vicinity of the site and the lack of large trees for roosting likely preclude its use by the bald eagle.

**Barn Owl**

Barn owls typically require large areas of pasture, grasslands, or wet meadows for feeding on small mammals. They utilize hollows or cavities in trees for nesting, but as their name suggests, often utilize man-made structures (like barns) for nesting. The vegetative community, along with the lack of hollows, cavities, and buildings likely preclude the site’s use by the barn owl.

**Black-Capped Vireo**

The black-capped vireo was de-listed from the federal T/E species list in 2018. The black-capped vireo requires low-growing (typically less than 8 feet in height), dense shrub habitat. Although the vegetative species composition can vary, some deciduous broad-leaved species are necessary. The site does not contain any low-growing dense shrub habitat typically utilized by the black capped vireo. The black-capped vireo would not occupy the proposed site.

**Woodchuck**

The woodchuck typically utilizes edge habitats, areas where woodlands meet open fields. Woodchucks build burrows, which they use for protection, hibernation, and rearing young. They primarily feed on herbaceous vegetation but can occasionally consume tree bark. Despite the presence of the woodland vegetation along the boundaries of the site, this vegetative type is not extensive enough to adequately support the woodchuck. It is unlikely that the woodchuck would occupy the proposed site.

**SUMMARY**

Based on this assessment, it is Goshawk’s opinion that the East Oak RDF Southwest Expansion Area does not provide habitat for, and would not likely be occupied by, any federally listed T/E species. While it is possible that the migratory bird species would utilize the site during migration, use would be transitory in nature and of short duration. Lack of suitable habitat makes the occurrence of the migratory species highly unlikely.

Sincerely,

[Signature]

Natasia Mitchell  
Environmental Specialist
USFWS IPaC Resource List
IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as trust resources) under the U.S. Fish and Wildlife Service’s (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Location
Oklahoma County, Oklahoma

Local office
Oklahoma Ecological Services Field Office

- (918) 581-7458
- (918) 581-7467

9014 East 21st Street
Tulsa, OK 74129-1428

http://www.fws.gov/southwest/es/Oklahoma/
Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population, even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act requires Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can only be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species

1 and their critical habitats are managed by the Ecological Services Program of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries1).

Species and critical habitats under the sole responsibility of NOAA Fisheries are not shown on this list. Please contact NOAA Fisheries for species under their jurisdiction.

1. Species listed under the Endangered Species Act are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the listing status page for more information.
2. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:
Birds

NAME

Least Tern Sterna antillarum
This species only needs to be considered if any of the following conditions apply:
• Wind Turbines and Wind Farms
• Towers (i.e. radio, television, cellular, microwave, meterological)

No critical habitat has been designated for this species.
https://ecos.fws.gov/ecp/species/8505

STATUS

Endangered

Piping Plover Charadrius melodus
There is final critical habitat for this species. Your location is outside the critical habitat.
https://ecos.fws.gov/ecp/species/6039

Red Knot Calidris canutus rufa
No critical habitat has been designated for this species.
https://ecos.fws.gov/ecp/species/1864

STATUS

Threatened

Whooping Crane Grus americana
There is final critical habitat for this species. Your location is outside the critical habitat.
https://ecos.fws.gov/ecp/species/758

STATUS

Endangered

Fishes

NAME

Arkansas River Shiner Notropis girardi
There is final critical habitat for this species. Your location is outside the critical habitat.
https://ecos.fws.gov/ecp/species/4364

STATUS

Threatened

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

THERE ARE NO CRITICAL HABITATS AT THIS LOCATION.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act
\(^1\) and the Bald and Golden Eagle Protection Act\(^2\).
Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described below.

1. The **Migratory Birds Treaty Act** of 1918.
2. The **Bald and Golden Eagle Protection Act** of 1940.

Additional information can be found using the following links:

- Nationwide conservation measures for birds

The birds listed below are birds of particular concern either because they occur on the [USFWS Birds of Conservation Concern](http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php) (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ below. This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the [E-bird data mapping tool](http://ebird.org) (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found below.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.
American Golden-plover  Pluvialis dominica
   This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Bald Eagle  Haliaeetus leucocephalus
   This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.
   https://ecos.fws.gov/ecp/species/1626

Buff-breasted Sandpiper  Calidris subrugicollis
   This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
   https://ecos.fws.gov/ecp/species/9488

Chestnut-collared Longspur  Calcarius ornatus
   This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Harris's Sparrow  Zonotrichia querula
   This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Hudsonian Godwit  Limosa haemastica
   This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Lesser Yellowlegs  Tringa flavipes
   This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
   https://ecos.fws.gov/ecp/species/9579

BREEDING SEASON (IF A BREEDING SEASON IS INDICATED FOR A BIRD ON YOUR LIST, THE BIRD MAY BREED IN YOUR PROJECT AREA SOMETIME WITHIN THE TIMEFRAME SPECIFIED, WHICH IS A VERY LIBERAL ESTIMATE OF THE DATES INSIDE WHICH THE BIRD BREEDS ACROSS ITS ENTIRE RANGE. "BREEDS ELSEWHERE" INDICATES THAT THE BIRD DOES NOT LIKELY BREED IN YOUR PROJECT AREA.)

Breeders

Breeds Sep 1 to Jul 31

Breeders

Breeds elsewhere

Breeders

Breeds elsewhere

Breeders

Breeds elsewhere

Breeders

Breeds elsewhere
Long-billed Curlew  Numenius americanus  
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. 
https://ecos.fws.gov/ecp/species/5511

Breed Apr 1 to Jul 31

Marbled Godwit  Limosa fedoa  
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. 
https://ecos.fws.gov/ecp/species/9481

Breed elsewhere

Red-headed Woodpecker  Melanerpes erythrocephalus  
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Breed May 10 to Sep 10

Semipalmated Sandpiper  Calidris pusilla  
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Breed elsewhere

Smith’s Longspur  Calcarius pictus  
This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA.

Breed elsewhere

Whimbrel  Numenius phaeopus  
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. 
https://ecos.fws.gov/ecp/species/9483

Breed elsewhere

Willet  Tringa semipalmata  
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Breed Apr 20 to Aug 5

Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

Nationwide Conservation Measures describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. Additional measures and/or permits may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the migratory birds potentially occurring in my specified location?

The Migratory Bird Resource List is comprised of USFWS Birds of Conservation Concern (BCC) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects,
and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (Eagle Act requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the E-bird Explore Data Tool.

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the Avian Knowledge Network (AKN). This data is derived from a growing collection of survey, banding, and citizen science datasets.

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go to the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering, migrating or present year-round in my project area?

To see what part of a particular bird’s range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may refer to the following resources: The Cornell Lab of Ornithology All About Birds Bird Guide, or (if you are unsuccessful in locating the bird of interest there), the Cornell Lab of Ornithology Neotropical Birds guide. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are Birds of Conservation Concern (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the Eagle Act requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the Northeast Ocean Data Portal. The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf project webpage.
Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the Diving Bird Study and the nanotag studies or contact Caleb Spiegel or Pam Loring.

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component, if the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Facilities

Wildlife refuges and fish hatcheries

REFUGE AND FISH HATCHERY INFORMATION IS NOT AVAILABLE AT THIS TIME

Wetlands in the National Wetlands Inventory

Impacts to NWI wetlands and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

This location overlaps the following wetlands:
The area of this project is too large for IPaC to load all NWI wetlands in the area. The list below may be incomplete. Please contact the local U.S. Fish and Wildlife Service office or visit the NWI map for a full list.

FRESHWATER EMERGENT WETLAND
- PEM1Fb
- PEM1Ch
- PRM1F
- PEM1Ah
- PEM1Fx

FRESH-WATER FORESTED/SHRUB WETLAND
- PFO1C
- PSS1/UBF

FRESHWATER POND
- PUBHh
- PUBFh
- PUSCh
- PUBx
- PUSCx
- PUBH
- PUBHx
- PUSAh
- PUSAx
- PUSC
- PUSA

RIVERINE
- R2USC

A full description for each wetland code can be found at the National Wetlands Inventory website

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions
Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tubercid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.
Dear Ms. Mitchell,

We have reviewed occurrence information on federal and state threatened, endangered or candidate species, as well as non-regulatory rare species and ecological systems of importance currently in the Oklahoma Natural Heritage Inventory database for the following location you provided:

Sec. 21-T12N-R2W, Oklahoma County

We found 1 occurrence(s) of relevant species within the vicinity of the project location as described.

Bald Eagle (*Haliaeetus leucocephalus*), a federally protected species, one occurrence in Sec. 2-T12N-R2W, Oklahoma County

Additionally, absence from our database does not preclude such species from occurring in the area.

If you have any questions about this response, please send me an email, or call us at the number given below.

Although not specific to your project, you may find the following links helpful.

ONHI, guide to ranking codes for endangered and threatened species:  
[http://vmpincel.ou.edu/heritage/ranking_guide.html](http://vmpincel.ou.edu/heritage/ranking_guide.html)

Information regarding the Oklahoma Natural Areas Registry:  
[http://www.oknaturalheritage.ou.edu/registry_faq.htm](http://www.oknaturalheritage.ou.edu/registry_faq.htm)

Todd Fagin  
Oklahoma Natural Heritage Inventory  
(405) 325-4700  
tfagin@ou.edu
This appendix provides documentation for the required coordination with the Oklahoma Scenic Rivers Commission. This appendix includes:

- February 7, 2019 Weaver Consultants Group request for Oklahoma Scenic Rivers Commission review.
Mr. Edward H. Fite III, Vice President of Water Quality  
Oklahoma Scenic Rivers Commission  
15971 Hwy. 10  
Tahlequah, Oklahoma 74464

Re: Scenic River Statement  
East Oak Recycling and Disposal Facility Expansion  
Oklahoma City, Oklahoma

Dear Mr. Fite:

The purpose of this letter, submitted on behalf of Waste Management of Oklahoma, Inc., is to confirm that the proposed landfill expansion of the East Oak Recycling and Disposal Facility is not located within the drainage basin of a scenic river, as designated by the Oklahoma Scenic Rivers Act. The Oklahoma Department of Environmental Quality (ODEQ) landfill location restriction regulation set forth in Oklahoma Administrative Code (OAC) §252:515-5-31(a), requires that a permit applicant for an expansion of a municipal solid waste facility determine if a proposed landfill expansion lies within a drainage basin of a designated scenic river.

Weaver Consultants Group, LLC is preparing a landfill expansion permit application, under contract with Waste Management of Oklahoma, Inc., to expand their existing landfill facility located in the City of Oklahoma City, Oklahoma. Please find attached a project summary and site location maps to assist in your review.

To verify compliance with §252:515-5-31(a), we are requesting that the Oklahoma Scenic Rivers Commission confirm that the landfill is not located within a drainage basin of a scenic river, as designated by the Commission or other agency. A review of the Oklahoma Scenic Rivers Commission web site indicates that no designated scenic rivers are located in the area of the East Oak Recycling and Disposal Facility. The proposed landfill expansion is located within the North Canadian River drainage basin. As shown on the attached maps, Crutcho Creek is located east of the landfill property. It is our understanding that the site is not located within a drainage basin of a designated scenic river.
Mr. Edward H. Fite III, Vice President of Water Quality  
Oklahoma Scenic Rivers Commission  
15971 Hwy. 10  
Tahlequah, Oklahoma 74464

Re: Scenic River Statement  
East Oak Recycling and Disposal Facility Expansion  
Oklahoma City, Oklahoma

Dear Mr. Fite:

The purpose of this letter, submitted on behalf of Waste Management of Oklahoma, Inc., is to confirm that the proposed landfill expansion of the East Oak Recycling and Disposal Facility is not located within the drainage basin of a scenic river, as designated by the Oklahoma Scenic Rivers Act. The Oklahoma Department of Environmental Quality (ODEQ) landfill location restriction regulation set forth in Oklahoma Administrative Code (OAC) §252:515-5-31(a), requires that a permit applicant for an expansion of a municipal solid waste facility determine if a proposed landfill expansion lies within a drainage basin of a designated scenic river.

Weaver Consultants Group, LLC is preparing a landfill expansion permit application, under contract with Waste Management of Oklahoma, Inc., to expand their existing landfill facility located in the City of Oklahoma City, Oklahoma. Please find attached a project summary and site location maps to assist in your review.

To verify compliance with §252:515-5-31(a), we are requesting that the Oklahoma Scenic Rivers Commission confirm that the landfill is not located within a drainage basin of a scenic river, as designated by the Commission or other agency. A review of the Oklahoma Scenic Rivers Commission web site indicates that no designated scenic rivers are located in the area of the East Oak Recycling and Disposal Facility. The proposed landfill expansion is located within the North Canadian River drainage basin. As shown on the attached maps, Crutcho Creek is located east of the landfill property. It is our understanding that the site is not located within a drainage basin of a designated scenic river.
Your assistance with this matter is sincerely appreciated. Please call if you have any questions or need additional information.

Sincerely,

Weaver Consultants Group, LLC

Crystal Alexander, G.I.T.
Staff Geologist

Attachments: Project Summary and Site Location Maps

cc: Guy R. Campbell, Waste Management of Oklahoma, Inc.
Pete Schultze, Waste Management of Oklahoma, Inc.
PROJECT SUMMARY AND SITE LOCATION MAPS
Project Summary

East Oak Recycling and Disposal Facility Expansion
Waste Management of Oklahoma, Inc.
Oklahoma City, Oklahoma

Introduction

The East Oak Recycling and Disposal Facility is in the process of developing a Tier III Permit Modification to expand the existing landfill to provide long-term disposal capacity for municipal solid waste that is generated in the City of Oklahoma City, Oklahoma County, and the surrounding areas. The purpose of this summary is to provide an overview of the proposed landfill expansion. The site is located in Section Twenty-One (21) of Township Twelve North (T-12-N), Range Two West (R-2-W) of the Indian Meridian, City of Oklahoma City, Oklahoma. The following subsections detail information regarding the owner and operator of the site, general site information, and a summary of the proposed site design.

Owner/Operator Information

The East Oak Recycling and Disposal Facility is owned and operated by Waste Management of Oklahoma, Inc., a Waste Management, Inc. company. Waste Management, Inc. is an integrated solid waste services company that provides solid waste collection, transfer, disposal and recycling services and serves more than 20 million residential, commercial and industrial customers in North America.

Site Information

The following drawings are attached to this summary.

- Site Location Map (Figure 1). This figure shows the site location on a standard Oklahoma Department of Transportation Oklahoma County Highway Map.
- Aerial Photograph (Figure 2). This figure shows the existing recycling and disposal facility and permitted waste disposal area, as well as the proposed expansion area, on a recent aerial photograph.
- Permitted Completion Plan and Proposed Completion Plan (Figure 3). This figure shows the permitted landfill completion plan and the proposed landfill completion plan on detailed site topographic maps.
The East Oak Recycling and Disposal Facility is located approximately 8 miles east of downtown Oklahoma City and is accessed from NE 36th Street approximately 2.5 miles east of Interstate Highway 35. The address of the site is 3201 Mosley Road, Oklahoma City, OK 73141. The service area includes the City of Oklahoma City, Oklahoma County, and other surrounding areas. The facility has operated under Oklahoma Department of Environmental Quality (ODEQ) Permit No. 3555036 since 1986.

**Design Summary**

The following information presents a summary of the design and operations for the proposed East Oak Recycling and Disposal Facility expansion.

- The existing permit boundary will expand from approximately 282.96 acres to a proposed 420 acres. The waste disposal area will increase from approximately 191.8 acres to 236 acres.

- Accepted wastes will remain consistent with the current municipal solid waste landfill permit. The facility will accept municipal solid waste, construction and demolition wastes, non-hazardous industrial waste, encapsulated asbestos waste, vegetative waste, semi-solid waste, and sludges as permitted by the ODEQ.

- Access to the site will be provided via the existing site access road from NE 36th Street. Based on traffic patterns of existing landfill traffic, most vehicles bound for the landfill will access the site using NE 36th Street from Interstate Highway 35. The existing roads are capable of handling the traffic load associated with the landfill.

- A liner and final cover system that meets all regulatory requirements will be used for the solid waste containment system. The design objective of the containment system (final cover, liner, and leachate management system) is to isolate the solid waste and remove leachate (defined as liquid that has contacted solid waste) that collects on the liner system. Leachate that is removed from the landfill will be discharged offsite to the Oklahoma City Publicly Owned Treatment Works (POTW) in accordance with the Oklahoma City Industrial Wastewater Treatment/Disposal Permit No. 2865. The construction procedures of the liner and final cover systems follow strict ODEQ approved quality control and quality assurance procedures, which are verified by an independent testing firm. Each of the containment system components must be thoroughly reviewed and approved by the ODEQ before solid waste is placed in the landfill.

- To verify that the highest levels of environmental protection are maintained, the following landfill monitoring systems are provided:
  - Groundwater Monitoring System. The purpose of the groundwater monitoring system is to verify the integrity of the containment system.
and verify that groundwater is not adversely impacted by the landfill. This is accomplished by obtaining water samples from the monitor wells, located on the perimeter of the landfill, which are screened in the uppermost saturated zone to monitor groundwater quality. The water samples are tested at an off-site laboratory.

- **Landfill Gas Monitoring System.** The purpose of the landfill gas monitoring system is to verify the integrity of the containment system and verify that methane gas, produced from the decomposing waste material, has not migrating beyond the permit boundary. This is accomplished by obtaining subsurface air samples from the landfill gas probes, located on the perimeter of the landfill, which are screened across potential migration pathways. The samples are tested on-site with a portable landfill gas analyzer.

- **These monitoring systems are sampled and tested periodically.** The results are filed with the ODEQ and are public record.

- **Site Operations.** Properly trained personnel will operate the site. A detailed site operating plan will be included in the landfill expansion permit application. The plan will detail the required equipment, personnel, and safety procedures required to operate the site in accordance with ODEQ regulations. The site will continue to provide solid waste disposal service six days a week and the active landfill area will be covered at the end of each workday to prevent potential nuisance conditions such as odors and vectors. The East Oak Recycling and Disposal Facility will continue to be inspected by the ODEQ on a regular basis to ensure the site is in compliance with state regulations.
APPENDIX D-4

RECREATION/PRESERVATION AREAS
CONTENTS

This appendix provides documentation for the required coordination with the Oklahoma Tourism and Recreation Department, Bureau of Reclamation, Oklahoma City Parks and Recreation Department, and Oklahoma Natural Areas Registry. This appendix includes:

- August 9, 2019 Bureau of Reclamation confirmation letter.
- June 18, 2019 City of Oklahoma City and Oklahoma City Riverfront Redevelopment Authority joint resolution letter.
- March 14, 2019 Weaver Consultants Group additional information letter for Oklahoma City Riverfront Redevelopment Authority.
- March 7, 2019 Oklahoma Tourism and Recreation Department confirmation letter.
- March 9, 2019 Oklahoma City Riverfront Authority ownership of land letter.
- February 12, 2019 Oklahoma Natural Areas Registry confirmation letter.
- February 7, 2019 Weaver Consultants Group request for Bureau of Reclamation review.
- February 7, 2019 Weaver Consultants Group request for Oklahoma City Parks and Recreation Department review.
- February 7, 2019 Weaver Consultants Group request for Oklahoma Tourism and Recreation Department review.
- February 7, 2019 Weaver Consultants Group request for Oklahoma Natural Areas Registry review.
Ms. Crystal Alexander, G.I.T.
Staff Geologist
Weaver Consultants Group, LLC
6420 Southwest Boulevard, Suite 206
Fort Worth, TX 76109

Subject: Project No. 0086-356-11-50-04, Public Recreation or Preservation Area Statement, East Oak Recycling and Disposal Facility Expansion, Oklahoma City, Oklahoma (Your Letter Dated February 12, 2019)

Dear Ms. Alexander:

This letter verifies that neither the subject project nor the existing landfill is located within one-half mile of lands administered by the Bureau of Reclamation for public recreation or preservation.

Please contact Ms. Ashley Dixson of this office at 405-470-4828 if you have any questions or need additional information.

Sincerely,

Jeff Tompkins
Supervisor, Resource Management Division
JOINT RESOLUTION

JOINT RESOLUTION BETWEEN THE CITY OF OKLAHOMA CITY (CITY) AND THE OKLAHOMA CITY RIVERFRONT REDEVELOPMENT AUTHORITY (OCRRA) STATING THAT WASTE MANAGEMENT OF OKLAHOMA, INC.'S PROPOSED EXPANSION OF THE EAST OAK RECYCLING AND DISPOSAL FACILITY IS NOT EXPECTED TO ADVERSELY AFFECT RECREATION OR NATURAL PRESERVATION AREAS OF THE OCRRA LEASEHOLD WITHIN ONE-HALF MILE OF THE PROPOSED EXPANSION.

WHEREAS, OCRRA is a public trust of which the City is sole beneficiary and whose primary responsibility is to plan, develop, and promote the City’s interests in and along the North Canadian/Oklahoma River Corridor (River Corridor); and

WHEREAS, pursuant to a Lease Agreement dated July 5, 2005, as amended on February 5, 2008, April 8, 2014, and May 17, 2016, the City has leased to OCRRA certain property in and along the River Corridor to develop for the use and enjoyment of the general public; and

WHEREAS, Waste Management of Oklahoma, Inc., (Waste Management) owns and operates the East Oak Recycling and Disposal Facility (East Oak RDF), located in Section Twenty-One (21), Township Twelve (12) North, Range Two (2) West of the Indian Meridian in Oklahoma County, Oklahoma, and roughly bounded by Northeast 36th Street to the north, Northeast 23rd Street to the south, North Air Depot Boulevard to the east, and North Sooner Road to the west, within the corporate limits of the City; and

WHEREAS, the East Oak RDF and its proposed expansion area are contiguous to City-owned property within the OCRRA leasehold; and

WHEREAS, the East Oak RDF has been an integral part of the City’s solid waste management system for more than thirty (30) years; and

WHEREAS, Waste Management seeks to expand the existing permit boundary of the East Oak RDF, as permitted by the Oklahoma Department of Environmental Quality (ODEQ), from approximately 282.96 acres to a proposed 420 acres, and to expand its waste disposal area from approximately 191.8 acres to 236 acres; and

WHEREAS, if the East Oak RDF is expanded, accepted wastes will remain consistent with the current municipal solid waste landfill permit, and a liner and final cover system that meets all regulatory requirements will be used for the solid waste containment system; and

WHEREAS, on April 24, 2018 (Agenda Item No. IX.A.4.), the City approved Ordinance No. 25,920 to amend Chapter 59 of the Oklahoma City Municipal Code, 2010, to include additional territory within the PUD-1672 Planned Unit Development (PUD) District to allow for expansion of the East Oak RDF; and
WHEREAS, ODEQ regulations codified in Title 252, § 252:515-5-31(b), of the Oklahoma Administrative Code prohibit the expansion of the permit boundary of an existing solid waste disposal facility if the expansion would be located within one-half mile of any area formally dedicated and managed for public recreation or natural preservation by a local governmental agency; and

WHEREAS, the regulatory restriction may be waived by ODEQ if the appropriate management agency provides a statement that the proposed facility is not expected to adversely affect the existing recreation or natural preservation area; and

WHEREAS, OCRRA manages City-owned property within one-half mile of the proposed expansion area of the East Oak RDF, as shown in Exhibit A, incorporated herein, which was acquired with park bonds funds for use and development consistent with park purposes; and

WHEREAS, on March 14, 2019, Waste Management requested OCRRA’s confirmation that the proposed expansion of the East Oak RDF will not adversely affect OCRRA-managed recreation or natural preservation area(s) within one-half mile of the proposed expansion; and

WHEREAS, the City and OCRRA have evaluated Waste Management’s proposed expansion of the East Oak RDF; and

WHEREAS, the City and OCRRA recognize and acknowledge Waste Management’s integral role in the City’s solid waste management system; and

WHEREAS, the City and OCRRA further recognize and acknowledge Waste Management’s commitments to minimize any negative impact(s) on City-owned and OCRRA-managed property within one-half mile of the proposed expansion area of the East Oak RDF through the establishment and/or maintenance of landscape and natural buffers; and

WHEREAS, the City and OCRRA desire to authorize and approve a statement that Waste Management’s proposed expansion of the East Oak RDF is not expected to adversely affect recreation or natural preservation areas of the OCRRA leasehold within one-half mile of the proposed expansion.

NOW, THEREFORE, BE IT JOINTLY RESOLVED by The City of Oklahoma City and the Oklahoma City Riverfront Redevelopment Authority (OCRRA) to hereby state that Waste Management of Oklahoma, Inc.’s proposed expansion of the East Oak Recycling and Disposal Facility is not expected to adversely affect recreation or natural preservation areas of the OCRRA leasehold within one-half mile of the proposed expansion, as depicted in Exhibit A, incorporated herein.

ADOPTED by the Oklahoma City Riverfront Redevelopment Authority this 28th day of May, 2019.

[Signature]
Secretary

[Signature]
Chairman
ADOPTED by the Council of The City of Oklahoma City this 18th day of June, 2019.

City Clerk

Mayor

REVIEWED for form and legality.

Assistant Municipal Counselor
Mr. David Burch  
Oklahoma City Riverfront Redevelopment Authority  
200 N. Walker Ave.  
Oklahoma City, Oklahoma 73102

Re: Public Recreation or Preservation Areas  
East Oak Recycling and Disposal Facility (RDF)  
Oklahoma City, Oklahoma

Dear Mr. Burch:

The purpose of this letter, submitted on behalf of Waste Management of Oklahoma, Inc. (WMO), is to follow up on previous correspondence related to the proposed expansion of the East Oak RDF. In February 2019 (Attachment 1), Weaver Consultants Group, LLC (WCG) contacted Oklahoma City Parks and Recreation Department to determine the location of public recreation or preservation areas designated by a federal, state, or local agency within ½ mile of the proposed expansion area of East Oak RDF. The Oklahoma City Riverfront Redevelopment Authority (OCRRA) provided a response to the February 2019 letter in March 2019 (Attachment 2) indicating:

"...the Oklahoma City Riverfront Redevelopment Authority (OCRRA) is a public trust that leases City-owned property along the North Canadian River Corridor. OCRRA manages this land, purchased with park bond funds, for use and development consistent with public park purposes. As shown in the enclosed illustration, part of the OCRRA leasehold is located within the half-mile buffer zone. Therefore, the proposed landfill expansion would appear to be compliant with § 252:515-5-31(b) of the Oklahoma Administrative Code."

Given this information, WMO will request that ODEQ grant an exception to Oklahoma Administrative Code (OAC) 252:515-5-31(b)(1) in accordance with OAC 252:515-15-31b(2). OAC 252:515-15-31b(2) states the following:

"Exception. This restriction may be waived if the appropriate management agency provides a statement that the proposed facility is not expected to adversely affect the existing recreation or natural preservation area. Such statement shall be submitted to the DEQ."

WCG utilized an online resource to search for existing recreation or natural preservation area facilities within the OCRRA area. The review of the Oklahoma City online zoning map indicates that land southwest of the proposed expansion area, within the OCRRA area, is zoned PUD-1631. A review of the PUD-1631 Lost Lakes Development Conceptual Site Plan Exhibit C would indicate that the closest proposed activity in this area would be a balloon fest location. It is WCG’s assumption that this area is, or is intended as, a launch site for
hot air balloons. This designated area is more than ½ mile from the proposed expansion area. The nearest proposed structure is a BMX/Moto-X Course and proposed Music Venue Amphitheater. These proposed facilities are approximately 1 mile from the proposed expansion area and based on online aerial images do not appear to be constructed.

WMO has also been approved for the expansion of East Oak RDF by Oklahoma City on April 24, 2018 through means of PUD-1672. As noted in PUD-1672, for over the past 30 years the East Oak RDF has been an integral part of Oklahoma City’s solid waste management system. This expansion will allow the existing East Oak RDF to continue to provide a safe and environmentally protective solid waste disposal facility for the Oklahoma City and surrounding communities. The expansion of the East Oak RDF will ensure that long-term solid waste disposal capacity is available for Oklahoma City to support future economic growth and development.

Given (1) the lack of existing recreation or natural preservation area facilities within the OCRRA area and within ½ mile of the East Oak RDF expansion area and (2) the approved PUD, WMO believes the expansion of the East Oak RDF will not adversely affect the OCRRA area. If there are other facilities within the OCRRA area and within ½ mile of the East Oak RDF expansion area that we are unaware of, please let us know.

To verify compliance with Oklahoma Administrative Code (OAC) 252:515-5-31(b)(2), WMO and WCG are requesting that the OCRRA confirm that the East Oak RDF expansion area will not adversely affect the existing recreation or natural preservation area facilities within ½ mile.

Your assistance with this matter is sincerely appreciated. Please call if you have any questions or need additional information.

Sincerely,

Weaver Consultants Group, LLC

Jonathan V. Queen, P.E.
Project Director

Attachment: Attachment 1 – February 7, 2019 Letter to Oklahoma City Parks and Recreation Department
Attachment 2 – March 4, 2019 Oklahoma City Riverfront Redevelopment Authority Response Letter
Attachment 3 – PUD Approval Letter

cc: Guy R. Campbell, Waste Management of Oklahoma, Inc.
Pete Schultze, Waste Management of Oklahoma, Inc.
ATTACHMENT 1

FEBRUARY 7, 2019 LETTER TO OKLAHOMA CITY
PARKS AND RECREATION DEPARTMENT
Ms. Melinda Miller  
Oklahoma City Parks & Recreation Department  
420 W Main  
Oklahoma City, Oklahoma 73102

Re: Public Recreation or Preservation Areas  
East Oak Recycling and Disposal Facility Expansion  
Oklahoma City, Oklahoma

Dear Ms. Miller:

The purpose of this letter, submitted on behalf of Waste Management of Oklahoma, Inc., is to confirm that the proposed expansion of the East Oak Landfill is not located within ½ mile of a public recreation or preservation area designated by a federal, state, or local agency. The Oklahoma Department of Environmental Quality landfill location restriction regulations set forth in Oklahoma Administrative Code (OAC) §252:515-5-31(b) require that a permit applicant for an expansion of a municipal solid waste facility determine if a proposed landfill expansion lies within ½ mile of an area designated for public recreation or preservation.

Weaver Consultants Group, LLC is preparing a landfill expansion permit application, under contract with Waste Management of Oklahoma, Inc., to expand their existing landfill facility located in the City of Oklahoma City, Oklahoma. The landfill has been operating at this location for over 25 years. Please find attached project summary and site location maps to assist in your review.

To verify compliance with §252:515-5-31(b), we are requesting that the Oklahoma City Parks and Recreation Department confirm that the landfill is not located within ½ mile of an area dedicated and managed by a federal, state, or local government agency for public recreation or preservation. As shown on Figure 2 (included in the Attachment), the site is located south of Northeast 36th Street, east of Sooner Road, and north of Northeast 23rd Street. The nearest public recreation area, Diggs Park, is located 1.2 miles southwest of the site. The nearest preservation area, Heritage Hills East, is located 5.2 miles west of the expansion.
Your assistance with this matter is sincerely appreciated. Please call if you have any questions or need additional information.

Sincerely,

Weaver Consultants Group, LLC

Crystal Alexander, G.I.T.
Staff Geologist

Attachments: Project Summary and Site Location Maps

cc: Guy R. Campbell, Waste Management of Oklahoma, Inc.
Pete Schultze, Waste Management of Oklahoma, Inc.
PROJECT SUMMARY AND SITE LOCATION MAPS
Project Summary

East Oak Recycling and Disposal Facility Expansion
Waste Management of Oklahoma, Inc.
Oklahoma City, Oklahoma

Introduction

The East Oak Recycling and Disposal Facility is in the process of developing a Tier III Permit Modification to expand the existing landfill to provide long-term disposal capacity for municipal solid waste that is generated in the City of Oklahoma City, Oklahoma County, and the surrounding areas. The purpose of this summary is to provide an overview of the proposed landfill expansion. The site is located in Section Twenty-One (21) of Township Twelve North (T-12-N), Range Two West (R-2-W) of the Indian Meridian, City of Oklahoma City, Oklahoma. The following subsections detail information regarding the owner and operator of the site, general site information, and a summary of the proposed site design.

Owner/Operator Information

The East Oak Recycling and Disposal Facility is owned and operated by Waste Management of Oklahoma, Inc., a Waste Management, Inc. company. Waste Management, Inc. is an integrated solid waste services company that provides solid waste collection, transfer, disposal and recycling services and serves more than 20 million residential, commercial and industrial customers in North America.

Site Information

The following drawings are attached to this summary.

- Site Location Map (Figure 1). This figure shows the site location on a standard Oklahoma Department of Transportation Oklahoma County Highway Map.
- Aerial Photograph (Figure 2). This figure shows the existing recycling and disposal facility and permitted waste disposal area, as well as the proposed expansion area, on a recent aerial photograph.
- Permitted Completion Plan and Proposed Completion Plan (Figure 3). This figure shows the permitted landfill completion plan and the proposed landfill completion plan on detailed site topographic maps.
The East Oak Recycling and Disposal Facility is located approximately 8 miles east of downtown Oklahoma City and is accessed from NE 36th Street approximately 2.5 miles east of Interstate Highway 35. The address of the site is 3201 Mosley Road, Oklahoma City, OK 73141. The service area includes the City of Oklahoma City, Oklahoma County, and other surrounding areas. The facility has operated under Oklahoma Department of Environmental Quality (ODEQ) Permit No. 3555036 since 1986.

Design Summary

The following information presents a summary of the design and operations for the proposed East Oak Recycling and Disposal Facility expansion.

- The existing permit boundary will expand from approximately 282.96 acres to a proposed 420 acres. The waste disposal area will increase from approximately 191.8 acres to 236 acres.
- Accepted wastes will remain consistent with the current municipal solid waste landfill permit. The facility will accept municipal solid waste, construction and demolition wastes, non-hazardous industrial waste, encapsulated asbestos waste, vegetative waste, semi-solid waste, and sludges as permitted by the ODEQ.
- Access to the site will be provided via the existing site access road from NE 36th Street. Based on traffic patterns of existing landfill traffic, most vehicles bound for the landfill will access the site using NE 36th Street from Interstate Highway 35. The existing roads are capable of handling the traffic load associated with the landfill.
- A liner and final cover system that meets all regulatory requirements will be used for the solid waste containment system. The design objective of the containment system (final cover, liner, and leachate management system) is to isolate the solid waste and remove leachate (defined as liquid that has contacted solid waste) that collects on the liner system. Leachate that is removed from the landfill will be discharged offsite to the Oklahoma City Publicly Owned Treatment Works (POTW) in accordance with the Oklahoma City Industrial Wastewater Treatment/Disposal Permit No. 2865. The construction procedures of the liner and final cover systems follow strict ODEQ approved quality control and quality assurance procedures, which are verified by an independent testing firm. Each of the containment system components must be thoroughly reviewed and approved by the ODEQ before solid waste is placed in the landfill.
- To verify that the highest levels of environmental protection are maintained, the following landfill monitoring systems are provided:
  - Groundwater Monitoring System. The purpose of the groundwater monitoring system is to verify the integrity of the containment system.
and verify that groundwater is not adversely impacted by the landfill. This is accomplished by obtaining water samples from the monitor wells, located on the perimeter of the landfill, which are screened in the uppermost saturated zone to monitor groundwater quality. The water samples are tested at an off-site laboratory.

- **Landfill Gas Monitoring System.** The purpose of the landfill gas monitoring system is to verify the integrity of the containment system and verify that methane gas, produced from the decomposing waste material, has not migrating beyond the permit boundary. This is accomplished by obtaining subsurface air samples from the landfill gas probes, located on the perimeter of the landfill, which are screened across potential migration pathways. The samples are tested on-site with a portable landfill gas analyzer.

- These monitoring systems are sampled and tested periodically. The results are filed with the ODEQ and are public record.

- **Site Operations.** Properly trained personnel will operate the site. A detailed site operating plan will be included in the landfill expansion permit application. The plan will detail the required equipment, personnel, and safety procedures required to operate the site in accordance with ODEQ regulations. The site will continue to provide solid waste disposal service six days a week and the active landfill area will be covered at the end of each workday to prevent potential nuisance conditions such as odors and vectors. The East Oak Recycling and Disposal Facility will continue to be inspected by the ODEQ on a regular basis to ensure the site is in compliance with state regulations.
NOTES:
1. ADAPTED FROM USGS 7.5 MINUTE QUADRANGLE TOPOGRAPHIC MAP (DENISON AND MIDWEST CITY, OKLAHOMA, 2012).
2. THE MAP AREA SHOWN IS WITHIN TOWNSHIP 12 NORTH, RANGE 2 WEST.
ATTACHMENT 2

MARCH 4, 2019 OKLAHOMA CITY RIVERFRONT REDEVELOPMENT AUTHORITY RESPONSE LETTER
March 4, 2019

Weaver Consultants Group
C/O Jonathan Queen, Senior Project Engineer
6420 Southwest Boulevard, Suite 206
Ft. Worth, TX 76109

Dear Mr. Queen:

Recently, staff of the City of Oklahoma City (City) Parks and Recreation Department received a letter from your organization dated February 7, 2019, regarding Project No. 0086-356-11-50-04. According to the letter, Waste Management of Oklahoma, Inc., proposes to expand the East Oak Landfill, located in northeast Oklahoma City.

You sought to confirm that the proposed expansion area is not within one-half mile of a public recreation or preservation area designated by a federal, state, or local agency. The letter stated, in part, "...the nearest public recreation area, Diggs Park, is located 1.2 miles southwest of the site. The nearest preservation area, Heritage Hills East, is located 5.2 miles west of the expansion."

Parks and Recreation Department staff can confirm that Diggs Park, 2201 North Coltrane Road, is approximately 1.2 miles southwest of the proposed expansion site. The Heritage Hills East preservation area is not part of the Oklahoma City park system. As such, staff cannot confirm information about its location.

Also, the Oklahoma City Riverfront Redevelopment Authority (OCRRA) is a public trust that leases City-owned property along the North Canadian River Corridor. OCRRA manages this land, purchased with park bond funds, for use and development consistent with public park purposes. As shown in the enclosed illustration, part of the OCRRA leasehold is located within the half-mile buffer zone. Therefore, the proposed landfill expansion would appear to be compliant with § 252:515-5-31(b) of the Oklahoma Administrative Code.

If you have questions or need additional information, please contact David Burch, OCRRA Trust Specialist, at (405) 297-2212, or at david.burch@okc.gov.

Sincerely,

[Signature]

M.T. Berry
Assistant City Manager
OCRRA Surrogate General Manager
AN ORDINANCE AMENDING CHAPTER 59, SECTION 5150 OF THE OKLAHOMA CITY MUNICIPAL CODE, 2010, TO INCLUDE ADDITIONAL TERRITORY WITHIN THE PUD PLANNED UNIT DEVELOPMENT DISTRICT AND DECLARING AN EMERGENCY.

BE IT ORDAINED BY THE COUNCIL OF THE CITY OF OKLAHOMA CITY:

SECTION 1. That Chapter 59, Section 5150 of The Oklahoma City Municipal Code, 2010, be amended to change the boundaries of the PUD Planned Unit Development District, as shown upon the District Map to include therein the following described property:

A part of Section Twenty-One (21), Township Twelve (12) North, Range Two (2) West of the Indian Meridian, Oklahoma County, Oklahoma, being more particularly described as attached.

COMMENCING at the Southwest Corner of said Section 21;
THENCE N00°14'35"W, along the West line of said Section 21, a distance of 50.00 feet;
THENCE N89°52'25"E, parallel with the South line of said Section 21, a distance of 26.31 feet to the True POINT OF BEGINNING, said point being 50.00 feet East of the Centerline of Sooner Road;
THENCE parallel with and 50.00 feet East of the centerline of Sooner Road for the following 3 courses:
THENCE N00°18'39"W, a distance of 783.15 feet;
THENCE on a curve to the Right with an arc length of 753.97 feet, a radius of 3046.00 feet, a chord bearing of N06°46'50"E, a chord length of 752.05 feet;
THENCE N13°59'22"E, a distance of 1087.66 feet to a point in the East/West Quarter Section line, said point being 384.74 feet East of the Northwest corner of the Southwest Quarter of said Section 21;
THENCE N71°28'04"E, a distance of 642.57 feet;
THENCE N45°32'03"E, a distance of 886.67 feet;
THENCE N22°26'33"E, a distance of 4.40 feet;
THENCE on a curve to the Left with an arc length of 234.74 feet, a radius of 859.93 feet, a chord bearing of N14°28'05"E, a chord length of 234.01 feet;
THENCE on a reverse curve to the Right with an arc length of 3.67 feet, a radius of 30.39 feet, a chord bearing of N09°48'15"E, a chord length of 3.67 feet;
THENCE N34°13'03"E, a distance of 21.52 feet;
THENCE on a curve to the Right with an arc length of 3.55 feet, a radius of 30.78 feet, a chord bearing of N58°29'14"E, a chord length of 3.55 feet;
THENCE N61°38'14"E, a distance of 63.31 feet;
THENCE on a curve to the Right with an arc length of 13.98 feet, a radius of 30.15 feet, a chord bearing of N74°49'41"E, a chord length of 13.86 feet;
THENCE N87°47'56"E, a distance of 203.90 feet;
THENCE on a curve to the Left with an arc length of 874.50 feet, a radius of 684.99 feet, a chord bearing of N51°11'42"E, a chord length of 816.31 feet;
THENCE on a reverse curve to the Right with an arc length of 53.73 feet, a radius of 45.00 feet, a chord bearing of N48°49'43"E, a chord length of 50.60 feet; THENCE N83°02'07"E, a distance of 311.10 feet; THENCE S89°38'06"E, a distance of 48.13 feet; THENCE S89°52'24"E, a distance of 460.41 feet; THENCE S89°51'27"E, a distance of 79.56 feet; THENCE on a curve to the Right with an arc length of 117.88 feet, a radius of 77.76 feet, a chord bearing of S46°18'36"E, with a chord length of 106.91 feet; THENCE S01°40'27"E, a distance of 248.33 feet; THENCE S10°46'16"E, a distance of 124.34 feet; THENCE S16°43'49"E, a distance of 102.84 feet; THENCE S18°51'26"E, a distance of 56.89 feet; THENCE S08°31'07"E, a distance of 140.66 feet; THENCE on a curve to the Right with an arc length of 27.22 feet, a radius of 70.73 feet, a chord bearing of S00°11'05"E, a chord length of 27.05 feet; THENCE S05°00'17"W, a distance of 56.18 feet; THENCE S30°08'26"W, a distance of 80.42 feet; THENCE S16°26'18"W, a distance of 95.67 feet; THENCE S45°58'54"W, a distance of 242.99 feet; THENCE S17°52'53"W, a distance of 1461.87 feet; THENCE S28°56'05"W, a distance of 255.64 feet; THENCE S27°45'02"W, a distance of 67.80 feet; THENCE S57°26'53"E, a distance of 148.98 feet; THENCE S32°41'41"W, a distance of 885.78 feet; THENCE S32°19'52"W, a distance of 347.85 feet; THENCE S32°55'14"W, a distance of 213.24 feet; THENCE S45°10'58"W, a distance of 197.54 feet; THENCE N00°00'08"W, a distance of 284.89 feet; THENCE S89°59'34"W, a distance of 232.06 feet; THENCE S04°01'40"W, a distance of 137.31 feet; THENCE S11°28'07"W, a distance of 172.36 feet; THENCE S89°52'25"W, parallel with and 50.00 feet North of the South line of said Section 21, a distance of 600.67 feet; THENCE N00°07'35"W, a distance of 150.00 feet; THENCE S89°52'25"W, a distance of 225.00 feet; THENCE S00°07'35"E, a distance of 150.00 feet; THENCE S89°52'25"W, parallel with and 50.00 feet North of the South line of said Section 21, a distance of 1248.80 feet to the True Point of Beginning having an area of 240.41 Acres more or less.

SECTION 2. (EMERGENCY) WHEREAS, it being immediately necessary for the preservation of the peace, health, safety, and public good of Oklahoma City and the inhabitants thereof that the provisions of the ordinance be put into full force and effect, an emergency is hereby declared to exist by reason whereof this ordinance shall take effect, and be in full force from and after its passage as provided by law.

INTRODUCED AND READ in open meeting of the Council of The City of Oklahoma City, Oklahoma, on this 27th day of March, 2018.
PASSED by the Council of The City of Oklahoma City, Oklahoma, on the 24th day of April, 2018.

SIGNED by the Mayor of The City of Oklahoma City, Oklahoma, on this 24th day of April, 2018.

ATTEST:

CITY CLERK

MAJOR

REVIEWED for form and legality.

ASSISTANT MUNICIPAL COUNSELOR
March 7, 2019

Crystal Alexander, G.I.T.
Weaver Consultants Group
6420 Southwest Boulevard
Fort Worth, TX. 76109

Re: East Oak Recycling and Disposal Facility Expansion, OKC

Dear Ms. Alexander:

We have reviewed the information you have provided regarding the proposed East Oak Recycling and Disposal Facility expansion in Oklahoma City.

Our interest is in avoiding any damage or action that would adversely affect the parks or recreational resources. The LWCF Act 54 U.S.C. 200305(f) (3) states that no land may be permanently used for private or non-outdoor recreation purposes (defined by the program).

We have checked our records and have found no federally funded park or recreation areas within one half mile of the proposed project site. Thank you for the opportunity to review your proposal. If you have any questions, please give me a call at 405-522-9616.

Sincerely,

Dick Dutton, Executive Director,
Oklahoma Tourism and Recreation Department
March 4, 2019

Weaver Consultants Group  
c/o Jonathan Queen, Senior Project Engineer  
6420 Southwest Boulevard, Suite 206  
Ft. Worth, TX 76109

Dear Mr. Queen:

Recently, staff of The City of Oklahoma City (City) Parks and Recreation Department received a letter from your organization dated February 7, 2019, regarding Project No. 0086-356-11-50-04. According to the letter, Waste Management of Oklahoma, Inc., proposes to expand the East Oak Landfill, located in northeast Oklahoma City.

You sought to confirm that the proposed expansion area is not within one-half mile of a public recreation or preservation area designated by a federal, state, or local agency. The letter stated, in part, "...the nearest public recreation area, Diggs Park, is located 1.2 miles southwest of the site. The nearest preservation area, Heritage Hills East, is located 5.2 miles west of the expansion."

Parks and Recreation Department staff can confirm that Diggs Park, 2201 North Coltrane Road, is approximately 1.2 miles southwest of the proposed expansion site. The Heritage Hills East preservation area is not part of the Oklahoma City park system. As such, staff cannot confirm information about its location.

Also, the Oklahoma City Riverfront Redevelopment Authority (OCRRA) is a public trust that leases City-owned property along the North Canadian River Corridor. OCRRA manages this land, purchased with park bond funds, for use and development consistent with public park purposes. As shown in the enclosed illustration, part of the OCRRA leasehold is located within the half-mile buffer zone. Therefore, the proposed landfill expansion would appear to be compliant with § 252:515-5-31(b) of the Oklahoma Administrative Code.

If you have questions or need additional information, please contact David Burch, OCRRA Trust Specialist, at (405) 297-2212, or at david.burch@okc.gov.

Sincerely,

M.T. Berry  
Assistant City Manager  
OCRRA Surrogate General Manager
Dear Ms. Alexander,

We have reviewed occurrence information on federal and state threatened, endangered or candidate species, as well as non-regulatory rare species and ecological systems of importance currently in the Oklahoma Natural Heritage Inventory database for the following location you provided:

Sec. 21-T12N-R2W, Oklahoma County

We found no occurrences of relevant species within the vicinity of the project location as described. However, absence from our database does not preclude such species from occurring in the area.

If you have any questions about this response, please send me an email, or call us at the number given below.

Although not specific to your project, you may find the following links helpful.

ONHI guide to ranking codes for endangered and threatened species:
http://vmpincel.ou.edu/heritage/ranking_guide.html

Information regarding the Oklahoma Natural Areas Registry:
http://www.oknaturalheritage.ou.edu/registry_faq.htm

Todd Fagin
Oklahoma Natural Heritage Inventory
(405) 325-4700
tfagin@ou.edu
Ms. Ashley Dixson, Realty Specialist  
Bureau of Reclamation  
5924 NW 2nd Street, Suite 200  
Oklahoma City, Oklahoma 73127

Re: Public Recreation or Preservation Area Statement  
East Oak Recycling and Disposal Facility Expansion  
Oklahoma City, Oklahoma

Dear Ms. Dixson:

The purpose of this letter, submitted on behalf of Waste Management of Oklahoma, Inc., is to confirm that the proposed landfill expansion of the East Oak Recycling and Disposal Facility is not located within 1/2 mile of a public recreation or preservation area designated by a federal, state, or local agency. The Oklahoma Department of Environmental Quality (ODEQ) landfill location restriction regulations set forth in Oklahoma Administrative Code (OAC) §252:515-5-31(b), require that a permit applicant for an expansion of a municipal solid waste facility determine if a proposed landfill expansion lies within 1/2 mile of an area designated for public recreation or preservation.

Weaver Consultants Group, LLC is preparing a permit application, under contract with Waste Management of Oklahoma, Inc., to expand their existing landfill located in the City of Oklahoma City, Oklahoma. A landfill has been operating at this location for over 25 years. Please find attached a project summary and site locations maps to facilitate your review.

To verify compliance with §252:515-5-31(b), we are requesting that the Bureau of Reclamation confirm that the landfill is not located within 1/2 mile of an area dedicated for public recreation or preservation.

Your assistance with this matter is sincerely appreciated. Please call if you have any questions or need additional information.

Sincerely,

Weaver Consultants Group, LLC

Crystal Alexander, G.I.T.  
Staff Geologist

Attachments:  Project Summary and Site Location Maps

cc:  Guy R. Campbell, Waste Management of Oklahoma, Inc.  
Pete Schultz, Waste Management of Oklahoma, Inc.
PROJECT SUMMARY AND
SITE LOCATION MAPS
Project Summary

East Oak Recycling and Disposal Facility Expansion
Waste Management of Oklahoma, Inc.
Oklahoma City, Oklahoma

Introduction

The East Oak Recycling and Disposal Facility is in the process of developing a Tier III Permit Modification to expand the existing landfill to provide long-term disposal capacity for municipal solid waste that is generated in the City of Oklahoma City, Oklahoma County, and the surrounding areas. The purpose of this summary is to provide an overview of the proposed landfill expansion. The site is located in Section Twenty-One (21) of Township Twelve North (T-12-N), Range Two West (R-2-W) of the Indian Meridian, City of Oklahoma City, Oklahoma. The following subsections detail information regarding the owner and operator of the site, general site information, and a summary of the proposed site design.

Owner/Operator Information

The East Oak Recycling and Disposal Facility is owned and operated by Waste Management of Oklahoma, Inc., a Waste Management, Inc. company. Waste Management, Inc. is an integrated solid waste services company that provides solid waste collection, transfer, disposal and recycling services and serves more than 20 million residential, commercial and industrial customers in North America.

Site Information

The following drawings are attached to this summary.

- Site Location Map (Figure 1). This figure shows the site location on a standard Oklahoma Department of Transportation Oklahoma County Highway Map.
- Aerial Photograph (Figure 2). This figure shows the existing recycling and disposal facility and permitted waste disposal area, as well as the proposed expansion area, on a recent aerial photograph.
- Permitted Completion Plan and Proposed Completion Plan (Figure 3). This figure shows the permitted landfill completion plan and the proposed landfill completion plan on detailed site topographic maps.
The East Oak Recycling and Disposal Facility is located approximately 8 miles east of downtown Oklahoma City and is accessed from NE 36th Street approximately 2.5 miles east of Interstate Highway 35. The address of the site is 3201 Mosley Road, Oklahoma City, OK 73141. The service area includes the City of Oklahoma City, Oklahoma County, and other surrounding areas. The facility has operated under Oklahoma Department of Environmental Quality (ODEQ) Permit No. 3555036 since 1986.

**Design Summary**

The following information presents a summary of the design and operations for the proposed East Oak Recycling and Disposal Facility expansion.

- The existing permit boundary will expand from approximately 282.96 acres to a proposed 420 acres. The waste disposal area will increase from approximately 191.8 acres to 236 acres.

- Accepted wastes will remain consistent with the current municipal solid waste landfill permit. The facility will accept municipal solid waste, construction and demolition wastes, non-hazardous industrial waste, encapsulated asbestos waste, vegetative waste, semi-solid waste, and sludges as permitted by the ODEQ.

- Access to the site will be provided via the existing site access road from NE 36th Street. Based on traffic patterns of existing landfill traffic, most vehicles bound for the landfill will access the site using NE 36th Street from Interstate Highway 35. The existing roads are capable of handling the traffic load associated with the landfill.

- A liner and final cover system that meets all regulatory requirements will be used for the solid waste containment system. The design objective of the containment system (final cover, liner, and leachate management system) is to isolate the solid waste and remove leachate (defined as liquid that has contacted solid waste) that collects on the liner system. Leachate that is removed from the landfill will be discharged offsite to the Oklahoma City Publicly Owned Treatment Works (POTW) in accordance with the Oklahoma City Industrial Wastewater Treatment/Disposal Permit No. 2865. The construction procedures of the liner and final cover systems follow strict ODEQ approved quality control and quality assurance procedures, which are verified by an independent testing firm. Each of the containment system components must be thoroughly reviewed and approved by the ODEQ before solid waste is placed in the landfill.

- To verify that the highest levels of environmental protection are maintained, the following landfill monitoring systems are provided:
  - Groundwater Monitoring System. The purpose of the groundwater monitoring system is to verify the integrity of the containment system.
and verify that groundwater is not adversely impacted by the landfill. This is accomplished by obtaining water samples from the monitor wells, located on the perimeter of the landfill, which are screened in the uppermost saturated zone to monitor groundwater quality. The water samples are tested at an off-site laboratory.

- Landfill Gas Monitoring System. The purpose of the landfill gas monitoring system is to verify the integrity of the containment system and verify that methane gas, produced from the decomposing waste material, has not migrating beyond the permit boundary. This is accomplished by obtaining subsurface air samples from the landfill gas probes, located on the perimeter of the landfill, which are screened across potential migration pathways. The samples are tested on-site with a portable landfill gas analyzer.

- These monitoring systems are sampled and tested periodically. The results are filed with the ODEQ and are public record.

- Site Operations. Properly trained personnel will operate the site. A detailed site operating plan will be included in the landfill expansion permit application. The plan will detail the required equipment, personnel, and safety procedures required to operate the site in accordance with ODEQ regulations. The site will continue to provide solid waste disposal service six days a week and the active landfill area will be covered at the end of each workday to prevent potential nuisance conditions such as odors and vectors. The East Oak Recycling and Disposal Facility will continue to be inspected by the ODEQ on a regular basis to ensure the site is in compliance with state regulations.
Ms. Melinda Miller
Oklahoma City Parks & Recreation Department
420 W Main
Oklahoma City, Oklahoma 73102

Re:  Public Recreation or Preservation Areas
     East Oak Recycling and Disposal Facility Expansion
     Oklahoma City, Oklahoma

Dear Ms. Miller:

The purpose of this letter, submitted on behalf of Waste Management of Oklahoma, Inc., is to confirm that the proposed expansion of the East Oak Landfill is not located within ½ mile of a public recreation or preservation area designated by a federal, state, or local agency. The Oklahoma Department of Environmental Quality landfill location restriction regulations set forth in Oklahoma Administrative Code (OAC) §252:515-5-31(b) require that a permit applicant for an expansion of a municipal solid waste facility determine if a proposed landfill expansion lies within ½ mile of an area designated for public recreation or preservation.

Weaver Consultants Group, LLC is preparing a landfill expansion permit application, under contract with Waste Management of Oklahoma, Inc., to expand their existing landfill facility located in the City of Oklahoma City, Oklahoma. The landfill has been operating at this location for over 25 years. Please find attached project summary and site location maps to assist in your review.

To verify compliance with §252:515-5-31(b), we are requesting that the Oklahoma City Parks and Recreation Department confirm that the landfill is not located within ½ mile of an area dedicated and managed by a federal, state, or local government agency for public recreation or preservation. As shown on Figure 2 (included in the Attachment), the site is located south of Northeast 36th Street, east of Sooner Road, and north of Northeast 23rd Street. The nearest public recreation area, Diggs Park, is located 1.2 miles southwest of the site. The nearest preservation area, Heritage Hills East, is located 5.2 miles west of the expansion.
Ms. Melinda Miller

Your assistance with this matter is sincerely appreciated. Please call if you have any questions or need additional information.

Sincerely,
Weaver Consultants Group, LLC

Crystal Alexander, G.I.T.
Staff Geologist

Attachments: Project Summary and Site Location Maps

cc: Guy R. Campbell, Waste Management of Oklahoma, Inc.
Pete Schultze, Waste Management of Oklahoma, Inc.
PROJECT SUMMARY AND SITE LOCATION MAPS
Introduction

The East Oak Recycling and Disposal Facility is in the process of developing a Tier III Permit Modification to expand the existing landfill to provide long-term disposal capacity for municipal solid waste that is generated in the City of Oklahoma City, Oklahoma County, and the surrounding areas. The purpose of this summary is to provide an overview of the proposed landfill expansion. The site is located in Section Twenty-One (21) of Township Twelve North (T-12-N), Range Two West (R-2-W) of the Indian Meridian, City of Oklahoma City, Oklahoma. The following subsections detail information regarding the owner and operator of the site, general site information, and a summary of the proposed site design.

Owner/Operator Information

The East Oak Recycling and Disposal Facility is owned and operated by Waste Management of Oklahoma, Inc., a Waste Management, Inc. company. Waste Management, Inc. is an integrated solid waste services company that provides solid waste collection, transfer, disposal and recycling services and serves more than 20 million residential, commercial and industrial customers in North America.

Site Information

The following drawings are attached to this summary.

- Site Location Map (Figure 1). This figure shows the site location on a standard Oklahoma Department of Transportation Oklahoma County Highway Map.
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- Permitted Completion Plan and Proposed Completion Plan (Figure 3). This figure shows the permitted landfill completion plan and the proposed landfill completion plan on detailed site topographic maps.
The East Oak Recycling and Disposal Facility is located approximately 8 miles east of downtown Oklahoma City and is accessed from NE 36th Street approximately 2.5 miles east of Interstate Highway 35. The address of the site is 3201 Mosley Road, Oklahoma City, OK 73141. The service area includes the City of Oklahoma City, Oklahoma County, and other surrounding areas. The facility has operated under Oklahoma Department of Environmental Quality (ODEQ) Permit No. 3555036 since 1986.

**Design Summary**

The following information presents a summary of the design and operations for the proposed East Oak Recycling and Disposal Facility expansion.

- The existing permit boundary will expand from approximately 282.96 acres to a proposed 420 acres. The waste disposal area will increase from approximately 191.8 acres to 236 acres.

- Accepted wastes will remain consistent with the current municipal solid waste landfill permit. The facility will accept municipal solid waste, construction and demolition wastes, non-hazardous industrial waste, encapsulated asbestos waste, vegetative waste, semi-solid waste, and sludges as permitted by the ODEQ.

- Access to the site will be provided via the existing site access road from NE 36th Street. Based on traffic patterns of existing landfill traffic, most vehicles bound for the landfill will access the site using NE 36th Street from Interstate Highway 35. The existing roads are capable of handling the traffic load associated with the landfill.

- A liner and final cover system that meets all regulatory requirements will be used for the solid waste containment system. The design objective of the containment system (final cover, liner, and leachate management system) is to isolate the solid waste and remove leachate (defined as liquid that has contacted solid waste) that collects on the liner system. Leachate that is removed from the landfill will be discharged offsite to the Oklahoma City Publicly Owned Treatment Works (POTW) in accordance with the Oklahoma City Industrial Wastewater Treatment/Disposal Permit No. 2865. The construction procedures of the liner and final cover systems follow strict ODEQ approved quality control and quality assurance procedures, which are verified by an independent testing firm. Each of the containment system components must be thoroughly reviewed and approved by the ODEQ before solid waste is placed in the landfill.

- To verify that the highest levels of environmental protection are maintained, the following landfill monitoring systems are provided:
  - Groundwater Monitoring System. The purpose of the groundwater monitoring system is to verify the integrity of the containment system.
and verify that groundwater is not adversely impacted by the landfill. This is accomplished by obtaining water samples from the monitor wells, located on the perimeter of the landfill, which are screened in the uppermost saturated zone to monitor groundwater quality. The water samples are tested at an off-site laboratory.

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- These monitoring systems are sampled and tested periodically. The results are filed with the ODEQ and are public record.

- Site Operations. Properly trained personnel will operate the site. A detailed site operating plan will be included in the landfill expansion permit application. The plan will detail the required equipment, personnel, and safety procedures required to operate the site in accordance with ODEQ regulations. The site will continue to provide solid waste disposal service six days a week and the active landfill area will be covered at the end of each workday to prevent potential nuisance conditions such as odors and vectors. The East Oak Recycling and Disposal Facility will continue to be inspected by the ODEQ on a regular basis to ensure the site is in compliance with state regulations.
Mr. Dick Dutton, Executive Director  
Oklahoma Tourism and Recreation Department  
900 N. Stiles  
Oklahoma City, Oklahoma 73104

Re: Public Recreation or Preservation Area Statement  
East Oak Recycling and Disposal Facility Expansion  
Oklahoma City, Oklahoma

Dear Mr. Dutton:

The purpose of this letter, submitted on behalf of Waste Management of Oklahoma, Inc., is to confirm that the proposed landfill expansion of the East Oak Recycling and Disposal Facility is not located within 1/2 mile of a public recreation or preservation area designated by a federal, state, or local agency. The Oklahoma Department of Environmental Quality landfill location restriction regulations set forth in Oklahoma Administrative Code (OAC) §252:515-5-31(b), requires that a permit applicant for an expansion of a municipal solid waste facility determine if a proposed landfill expansion lies within 1/2 mile of an area designated for public recreation or preservation.

Weaver Consultants Group, LLC is preparing a landfill expansion permit application, under contract with Waste Management of Oklahoma, Inc., to expand their existing landfill located in the City of Oklahoma City, Oklahoma. A landfill has been operating at this location for over 25 years. Please find attached a project summary and site location maps to facilitate your review.

To verify compliance with §252:515-5-31(b), we are requesting that the Oklahoma Tourism and Recreation Department confirm that the landfill is not located within 1/2 mile of an area dedicated and managed by a federal, state, or local government agency for public recreation or preservation.
Your assistance with this matter is sincerely appreciated. Please call if you have any questions or need additional information.

Sincerely,

Weaver Consultants Group, LLC

Crystal Alexander, G.I.T.
Staff Geologist

Attachments: Project Summary and Site Location Maps

cc: Guy R. Campbell, Waste Management of Oklahoma, Inc.
Pete Schultze, Waste Management of Oklahoma, Inc.
PROJECT SUMMARY AND SITE LOCATION MAPS
Project Summary

East Oak Recycling and Disposal Facility Expansion
Waste Management of Oklahoma, Inc.
Oklahoma City, Oklahoma

Introduction

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The East Oak Recycling and Disposal Facility is located approximately 8 miles east of downtown Oklahoma City and is accessed from NE 36th Street approximately 2.5 miles east of Interstate Highway 35. The address of the site is 3201 Mosley Road, Oklahoma City, OK 73141. The service area includes the City of Oklahoma City, Oklahoma County, and other surrounding areas. The facility has operated under Oklahoma Department of Environmental Quality (ODEQ) Permit No. 3555036 since 1986.

**Design Summary**

The following information presents a summary of the design and operations for the proposed East Oak Recycling and Disposal Facility expansion.

- The existing permit boundary will expand from approximately 282.96 acres to a proposed 420 acres. The waste disposal area will increase from approximately 191.8 acres to 236 acres.

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- Access to the site will be provided via the existing site access road from NE 36th Street. Based on traffic patterns of existing landfill traffic, most vehicles bound for the landfill will access the site using NE 36th Street from Interstate Highway 35. The existing roads are capable of handling the traffic load associated with the landfill.

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Weaver Consultants Group, LLC
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- These monitoring systems are sampled and tested periodically. The results are filed with the ODEQ and are public record.

- Site Operations. Properly trained personnel will operate the site. A detailed site operating plan will be included in the landfill expansion permit application. The plan will detail the required equipment, personnel, and safety procedures required to operate the site in accordance with ODEQ regulations. The site will continue to provide solid waste disposal service six days a week and the active landfill area will be covered at the end of each workday to prevent potential nuisance conditions such as odors and vectors. The East Oak Recycling and Disposal Facility will continue to be inspected by the ODEQ on a regular basis to ensure the site is in compliance with state regulations.
Priscilla Crawford, Conservation Specialist
Oklahoma Natural Areas Registry
111 East Chesapeake Street
Norman, Oklahoma 73019-0575

Re:  Public Recreation or Preservation Area Statement
     East Oak Recycling and Disposal Facility Expansion
     Oklahoma City, Oklahoma

Dear Ms. Crawford:

The purpose of this letter, submitted on behalf of Waste Management of Oklahoma, Inc., is to confirm that the proposed landfill expansion of the East Oak Recycling and Disposal Facility is not located within 1/2 mile of a public recreation or preservation area designated by a federal, state, or local agency. The Oklahoma Department of Environmental Quality landfill location restriction regulations, set forth in Oklahoma Administrative Code (OAC) §252:515-5-31(b), requires that a permit applicant for an expansion of a municipal solid waste facility determine if a proposed landfill expansion lies within 1/2 mile of an area designated for public recreation or preservation.

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To verify compliance with §252:515-5-31(b), we are requesting that the Oklahoma Natural Areas Registry confirm that the landfill is not located within 1/2 mile of an area dedicated and managed by a federal, state, or local government agency for public recreation or preservation.
Your assistance with this matter is sincerely appreciated. Please call if you have any questions or need additional information.

Sincerely,

Weaver Consultants Group, LLC

Crystal Alexander, G.I.T.
Staff Geologist

Attachments: Project Summary and Site Location Maps

cc: Guy R. Campbell, Waste Management of Oklahoma, Inc.
Pete Schultze, Waste Management of Oklahoma, Inc.
PROJECT SUMMARY AND
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Waste Management of Oklahoma, Inc.
Oklahoma City, Oklahoma

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**Design Summary**

The following information presents a summary of the design and operations for the proposed East Oak Recycling and Disposal Facility expansion.

- The existing permit boundary will expand from approximately 282.96 acres to a proposed 420 acres. The waste disposal area will increase from approximately 191.8 acres to 236 acres.

- Accepted wastes will remain consistent with the current municipal solid waste landfill permit. The facility will accept municipal solid waste, construction and demolition wastes, non-hazardous industrial waste, encapsulated asbestos waste, vegetative waste, semi-solid waste, and sludges as permitted by the ODEQ.

- Access to the site will be provided via the existing site access road from NE 36th Street. Based on traffic patterns of existing landfill traffic, most vehicles bound for the landfill will access the site using NE 36th Street from Interstate Highway 35. The existing roads are capable of handling the traffic load associated with the landfill.

- A liner and final cover system that meets all regulatory requirements will be used for the solid waste containment system. The design objective of the containment system (final cover, liner, and leachate management system) is to isolate the solid waste and remove leachate (defined as liquid that has contacted solid waste) that collects on the liner system. Leachate that is removed from the landfill will be discharged offsite to the Oklahoma City Publicly Owned Treatment Works (POTW) in accordance with the Oklahoma City Industrial Wastewater Treatment/Disposal Permit No. 2865. The construction procedures of the liner and final cover systems follow strict ODEQ approved quality control and quality assurance procedures, which are verified by an independent testing firm. Each of the containment system components must be thoroughly reviewed and approved by the ODEQ before solid waste is placed in the landfill.

- To verify that the highest levels of environmental protection are maintained, the following landfill monitoring systems are provided:
  - Groundwater Monitoring System. The purpose of the groundwater monitoring system is to verify the integrity of the containment system...

Weaver Consultants Group, LLC
and verify that groundwater is not adversely impacted by the landfill. This is accomplished by obtaining water samples from the monitor wells, located on the perimeter of the landfill, which are screened in the uppermost saturated zone to monitor groundwater quality. The water samples are tested at an off-site laboratory.

- Landfill Gas Monitoring System. The purpose of the landfill gas monitoring system is to verify the integrity of the containment system and verify that methane gas, produced from the decomposing waste material, has not migrating beyond the permit boundary. This is accomplished by obtaining subsurface air samples from the landfill gas probes, located on the perimeter of the landfill, which are screened across potential migration pathways. The samples are tested on-site with a portable landfill gas analyzer.

- These monitoring systems are sampled and tested periodically. The results are filed with the ODEQ and are public record.

- Site Operations. Properly trained personnel will operate the site. A detailed site operating plan will be included in the landfill expansion permit application. The plan will detail the required equipment, personnel, and safety procedures required to operate the site in accordance with ODEQ regulations. The site will continue to provide solid waste disposal service six days a week and the active landfill area will be covered at the end of each workday to prevent potential nuisance conditions such as odors and vectors. The East Oak Recycling and Disposal Facility will continue to be inspected by the ODEQ on a regular basis to ensure the site is in compliance with state regulations.
APPENDIX D-5

SURFACE WATER INTAKE
CONTENTS

This appendix provides surface water intake documentation for the required coordination with the Oklahoma Water Resources Board. This appendix includes:

- September 3, 2019 Weaver Consultants Group additional information letter from the Oklahoma Water Resources Board.
- August 22, 2019 Oklahoma Department of Environmental Quality publicly available GIS Maps & DATA PWS Surface Water Intakes Map.
- June 19, 2019 Oklahoma Water Resources Board no opinion on surface water intake review letter.
- February 7, 2019 Weaver Consultants Group request for surface water intake review by the Oklahoma Water Resources Board.
Mr. Kent Wilkins  
Permitting Section, Surface Water and Groundwater  
Oklahoma Water Resources Board  
3800 North Classen Boulevard  
Oklahoma City, Oklahoma 73118

Re:  Response to the Request for Information - Public Water Supply Surface Water Intake Statement  
     East Oak Recycling and Disposal Facility Expansion  
     Oklahoma City, Oklahoma

Dear Mr. Wilkins:

The purpose of this letter, submitted on behalf of Waste Management of Oklahoma, Inc., is to provide additional information as it pertains to the Oklahoma Water Resources Board (OWRB) July 19, 2019 response letter regarding the East Oak Recycling and Disposal Facility (RDF). The July 19, 2019 response letter is provided in Attachment 1 for reference.

Weaver Consultants Group LLC (WCG) has coordinated with the Oklahoma Department of Environmental Quality (ODEQ) and utilized the ODEQ Geographic Information Systems (GIS) Maps and Data online software to determine that East Oak RDF is not one mile or less upstream of a permitted or proposed public water supply surface water intake.

WCG used the information included in the July 19, 2019 OWRB response letter to confirm that East Oak RDF is more than one mile upstream of a currently permitted or pending public water supply diversion point. The nearest downstream diversion point #20060030 is 3.2 miles northeast from East Oak RDF.

Therefore given the information obtained regarding the public water supply surface water intakes and public water supply diversion points proximity to the facility, it is our understanding that the East Oak RDF expansion is in compliance with Section 515-5-32(b) of Title 252 of the Oklahoma Administrative Code (OAC). However, WCG will provide this information to ODEQ Water Quality Division for approval.
Mr. Kent Wilkins

September 3, 2019

Your assistance with this matter is sincerely appreciated. Please call if you have any questions or need additional information.

Sincerely,

Weaver Consultants Group, LLC

Jonathan V. Queen, P.E.
Project Director

Attachments:

Attachment 1 - July 19, 2019 OWRB Response letter

ATTACHMENT 1:

JULY 19, 2019 OWRB RESPONSE LETTER
June 19, 2019

Crystal Alexander, G.I.T., Staff Geologist
Weaver Consultants Group, L.L.C
6420 Southwest Boulevard, Suite 206
Fort Worth, Texas 76109

RE: Request for information – Public Water Supply Surface Water Intake Statement
East Oak Recycling and Disposal Facility Expansion, Oklahoma City, OK

Dear Ms. Alexander:

The Oklahoma Water Resources Board (“OWRB”) received your letter requesting information regarding public water supply surface water intakes. Your letter states that the request is made in connection with the permit application of your client, Waste Management of Oklahoma, Inc., with the Oklahoma Department of Environmental Quality (“ODEQ”). Your letter further informs us that your client is seeking to expand an existing landfill in Oklahoma City, Oklahoma.

The OWRB would first like to warn you that it is not the appropriate agency to request a verification of compliance with Section 515-5-32(b) of Title 252 of the Oklahoma Administrative Code (“OAC”). To the best of our knowledge, the provisions of that section are administered and implemented by the ODEQ’s land protection division. As such, we cannot and will not attempt to verify compliance with a regulatory provision that is outside of our defined areas of jurisdiction, which include groundwater and stream water use permits.

While the OWRB cannot make any decision on compliance, it will certainly make its permitting information available to your client or to the ODEQ staff as requested. To that end, please find attached a map of permit diversion points which might be relevant to your inquiry. Should you require any additional information, please feel free to contact a member of our staff at (405) 530 8800.

Best regards,

Kent Wilkins, Chief
Planning & Management Division
June 19, 2019

Crystal Alexander, G.I.T., Staff Geologist
Weaver Consultants Group, L.L.C
6420 Southwest Boulevard, Suite 206
Fort Worth, Texas 76109

RE: Request for information – Public Water Supply Surface Water Intake Statement
East Oak Recycling and Disposal Facility Expansion, Oklahoma City, OK

Dear Ms. Alexander:

The Oklahoma Water Resources Board ("OWRB") received your letter requesting information regarding public water supply surface water intakes. Your letter states that the request is made in connection with the permit application of your client, Waste Management of Oklahoma, Inc., with the Oklahoma Department of Environmental Quality ("ODEQ"). Your letter further informs us that your client is seeking to expand an existing landfill in Oklahoma City, Oklahoma.

The OWRB would first like to warn you that it is not the appropriate agency to request a verification of compliance with Section 515-5-32(b) of Title 252 of the Oklahoma Administrative Code ("OAC"). To the best of our knowledge, the provisions of that section are administered and implemented by the ODEQ's land protection division. As such, we cannot and will not attempt to verify compliance with a regulatory provision that is outside of our defined areas of jurisdiction, which include groundwater and stream water use permits.

While the OWRB cannot make any decision on compliance, it will certainly make its permitting information available to your client or to the ODEQ staff as requested. To that end, please find attached a map of permit diversion points which might be relevant to your inquiry. Should you require any additional information, please feel free to contact a member of our staff at (405) 530 8800.

Best regards,

Kent Wilkins, Chief
Planning & Management Division
Mr. Kent Wilkins  
Permitting Section, Surface Water and Groundwater  
Oklahoma Water Resources Board  
3800 North Classen Boulevard  
Oklahoma City, Oklahoma 73118

Re: Public Water Supply Surface Water Intake Statement  
East Oak Recycling and Disposal Facility Expansion  
Oklahoma City, Oklahoma

Dear Mr. Wilkins:

The purpose of this letter, submitted on behalf of Waste Management of Oklahoma, Inc., is to confirm existing Oklahoma Department of Environmental Quality (ODEQ) information that the proposed landfill expansion of the East Oak Recycling and Disposal Facility is not one mile or less upstream from an existing or planned public water supply surface water intake. The ODEQ landfill location restriction regulation regarding public water supply intakes set forth in Oklahoma Administrative Code (OAC) §252:515-5-32(b), requires that a permit applicant for an expansion of a municipal solid waste facility determine if a proposed landfill expansion is one mile or less upstream from an existing or planned public water supply surface water intake.

Weaver Consultants Group, LLC is preparing a permit application, under contract with Waste Management of Oklahoma, Inc., to expand the existing landfill located in Oklahoma City, Oklahoma. Our review of the ODEQ website indicates the nearest public water supply intake is approximately 7.0 miles north of the site at Lake Arcadia. Please find attached a project summary and site location maps to facilitate in your review.

To verify compliance with §252:515-5-32(b), we are requesting that the Oklahoma Water Resources Board confirm that the landfill is not located within one mile or less upstream from an existing or planned public water supply surface water intake.
Your assistance with this matter is sincerely appreciated. Please call if you have any questions or need additional information.

Sincerely,

Weaver Consultants Group, LLC

Crystal Alexander, G.I.T.
Staff Geologist

Attachments: Project Summary and Site Location Maps

cc: Guy R. Campbell, Waste Management of Oklahoma, Inc.
Pete Schultze, Waste Management of Oklahoma, Inc.
PROJECT SUMMARY AND SITE LOCATION MAPS
Project Summary

East Oak Recycling and Disposal Facility Expansion
Waste Management of Oklahoma, Inc.
Oklahoma City, Oklahoma

Introduction

The East Oak Recycling and Disposal Facility is in the process of developing a Tier III Permit Modification to expand the existing landfill to provide long-term disposal capacity for municipal solid waste that is generated in the City of Oklahoma City, Oklahoma County, and the surrounding areas. The purpose of this summary is to provide an overview of the proposed landfill expansion. The site is located in Section Twenty-One (21) of Township Twelve North (T-12-N), Range Two West (R-2-W) of the Indian Meridian, City of Oklahoma City, Oklahoma. The following subsections detail information regarding the owner and operator of the site, general site information, and a summary of the proposed site design.

Owner/Operator Information

The East Oak Recycling and Disposal Facility is owned and operated by Waste Management of Oklahoma, Inc., a Waste Management, Inc. company. Waste Management, Inc. is an integrated solid waste services company that provides solid waste collection, transfer, disposal and recycling services and serves more than 20 million residential, commercial and industrial customers in North America.

Site Information

The following drawings are attached to this summary.

- Site Location Map (Figure 1). This figure shows the site location on a standard Oklahoma Department of Transportation Oklahoma County Highway Map.

- Aerial Photograph (Figure 2). This figure shows the existing recycling and disposal facility and permitted waste disposal area, as well as the proposed expansion area, on a recent aerial photograph.

- Permitted Completion Plan and Proposed Completion Plan (Figure 3). This figure shows the permitted landfill completion plan and the proposed landfill completion plan on detailed site topographic maps.
The East Oak Recycling and Disposal Facility is located approximately 8 miles east of downtown Oklahoma City and is accessed from NE 36th Street approximately 2.5 miles east of Interstate Highway 35. The address of the site is 3201 Mosley Road, Oklahoma City, OK 73141. The service area includes the City of Oklahoma City, Oklahoma County, and other surrounding areas. The facility has operated under Oklahoma Department of Environmental Quality (ODEQ) Permit No. 3555036 since 1986.

**Design Summary**

The following information presents a summary of the design and operations for the proposed East Oak Recycling and Disposal Facility expansion.

- The existing permit boundary will expand from approximately 282.96 acres to a proposed 420 acres. The waste disposal area will increase from approximately 191.8 acres to 236 acres.

- Accepted wastes will remain consistent with the current municipal solid waste landfill permit. The facility will accept municipal solid waste, construction and demolition wastes, non-hazardous industrial waste, encapsulated asbestos waste, vegetative waste, semi-solid waste, and sludges as permitted by the ODEQ.

- Access to the site will be provided via the existing site access road from NE 36th Street. Based on traffic patterns of existing landfill traffic, most vehicles bound for the landfill will access the site using NE 36th Street from Interstate Highway 35. The existing roads are capable of handling the traffic load associated with the landfill.

- A liner and final cover system that meets all regulatory requirements will be used for the solid waste containment system. The design objective of the containment system (final cover, liner, and leachate management system) is to isolate the solid waste and remove leachate (defined as liquid that has contacted solid waste) that collects on the liner system. Leachate that is removed from the landfill will be discharged offsite to the Oklahoma City Publicly Owned Treatment Works (POTW) in accordance with the Oklahoma City Industrial Wastewater Treatment/Disposal Permit No. 2865. The construction procedures of the liner and final cover systems follow strict ODEQ approved quality control and quality assurance procedures, which are verified by an independent testing firm. Each of the containment system components must be thoroughly reviewed and approved by the ODEQ before solid waste is placed in the landfill.

- To verify that the highest levels of environmental protection are maintained, the following landfill monitoring systems are provided:
  - Groundwater Monitoring System. The purpose of the groundwater monitoring system is to verify the integrity of the containment system.
and verify that groundwater is not adversely impacted by the landfill. This is accomplished by obtaining water samples from the monitor wells, located on the perimeter of the landfill, which are screened in the uppermost saturated zone to monitor groundwater quality. The water samples are tested at an off-site laboratory.

- Landfill Gas Monitoring System. The purpose of the landfill gas monitoring system is to verify the integrity of the containment system and verify that methane gas, produced from the decomposing waste material, has not migrating beyond the permit boundary. This is accomplished by obtaining subsurface air samples from the landfill gas probes, located on the perimeter of the landfill, which are screened across potential migration pathways. The samples are tested on-site with a portable landfill gas analyzer.

- These monitoring systems are sampled and tested periodically. The results are filed with the ODEQ and are public record.

- Site Operations. Properly trained personnel will operate the site. A detailed site operating plan will be included in the landfill expansion permit application. The plan will detail the required equipment, personnel, and safety procedures required to operate the site in accordance with ODEQ regulations. The site will continue to provide solid waste disposal service six days a week and the active landfill area will be covered at the end of each workday to prevent potential nuisance conditions such as odors and vectors. The East Oak Recycling and Disposal Facility will continue to be inspected by the ODEQ on a regular basis to ensure the site is in compliance with state regulations.
 NOTES:
1. ADAPTED FROM USBGS 7.5 MINUTE QUADRANGLE TOPOGRAPHIC MAP (CENTER AND MIDWEST CITY, OKLAHOMA, 2012).
2. THE MAP AREA SHOWN IS WITHIN TOWNSHIP 12 NORTH, RANGE 2 WEST.
APPENDIX D-6

EXCERPTS FROM PUD-1672
This appendix includes excerpts from the City of Oklahoma approved (April 24, 2018) Planned Unit Development (PUD-1672) for the proposed modifications to the site.
THE CITY OF OKLAHOMA CITY
PLANNED UNIT DEVELOPMENT

PUD – 1672

MASTER DESIGN STATEMENT FOR
EAST OAK RECYCLING AND DISPOSAL FACILITY

Prepared for
Waste Management of Oklahoma, Inc.
December 2017

Prepared by
Weaver Consultants Group, LLC
6420 Southwest Blvd, Suite 206
Fort Worth, Texas 76109
817-735-9770 (Office) 817-735-9775 (Fax)
lqueen@wgrp.com

Project No. 0086-356-11-50

D-6-2
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### EXHIBITS

- **EXHIBIT A**
  Master Development Plan

- **EXHIBIT B**
  Legal Description

- **EXHIBIT C**
  PUD Area Zoning Map

- **EXHIBIT D**
  Topographic Map

- **EXHIBIT E**
  Site Aerial Photograph

- **EXHIBIT F**
  PUD Concept

- **EXHIBIT G**
  Planting Plan
1 DESIGN STATEMENT INTRODUCTION

1.1 Purpose

The purpose of this Planned Unit Development (PUD) is to provide an updated Master Development Plan that will allow the existing East Oak Recycling and Disposal Facility to continue to provide a safe and environmentally protective solid waste disposal facility for the City of Oklahoma City (City) and surrounding communities. The PUD is discussed below. For over the past 30 years the East Oak Recycling and Disposal Facility has been an integral part of the City's solid waste management system. The expansion plan included in this PUD for the East Oak Recycling and Disposal Facility will ensure that long-term solid waste disposal capacity is available for the City to support future economic growth and development.

The development and operation of the existing landfill is governed by Oklahoma Department of Environmental Quality (ODEQ) Permit No. 3555036. SP-387 (landfill), PUD-1419 (soil borrow), and PUD-1534 (landfill) have been approved by the City since 2007. The soil borrow areas support the operation of the landfill by providing soil that is used to cover solid waste on a daily basis and for the landfill's liner and final cover systems. This PUD will take advantage of buffers, natural buffers, and landscape buffers previously established in accordance with SP-387, PUD-1419, and PUD-1534.

The currently permitted landfill is 191.8 acres. The proposed expansion will add approximately 46 acres. The concept of the PUD is discussed in Section 6 and depicted on Exhibit F. This expansion will allow the landfill to continue to provide solid waste disposal services to the area for the next 15 to 20 years.

The proposed PUD is 240.4 acres. The area will be utilized for sanitary landfill, soil borrow, and stormwater management. Auxiliary uses include leachate, gas collection, and stormwater management facilities. The minerals and raw materials from the soil borrow area will be utilized to facilitate site operations including, but not limited to, daily cover/intermediate cover, liner construction, final cover, and drainage structure construction.

1.2 Location

The site is located south of Northeast 36th Street, east of N. Sooner Road, and north of Northeast 23rd Street within the Oklahoma City limits. This location is approximately 8 miles east of downtown Oklahoma City. Specifically, the site is...
located in Section Twenty-One (21), Township Twelve North (T-12-N), Range Two West (R-2-W) of the Indian Meridian, Oklahoma County, Oklahoma. The address for the facility is:

East Oak Recycling and Disposal Facility  
3201 Mosley Road  
Oklahoma City, Oklahoma 73141

1.3 Definitions

**Buffer**  
The area between the portion of the site that is used for waste disposal and/or soil borrow and the property line/easement/right of way/fence line.

**Established and Maintained**  
Established and maintained means existing and proposed buffer areas will meet the standards (i.e. rows, height, spacing, distance) shown on the Planting Plan—Exhibit G as well as the vegetation (grasses) establishment discussed in Section 9.2.2.

**Landfill Buffer**  
An area designated between the limit of waste fill area and permit boundary that is free of waste materials.

**Landfill Gas Collection and Control System (GCCS)**  
A GCCS, which consists of vertical extraction wells, a piping network, condensate management system, and flare facilities, utilized to remove the landfill gas (LFG) from within the landfill before it reaches the landfill surface and enters the atmosphere, thereby reducing the potential for odors from LFG emissions.

**Landscape Buffer**  
An area designated between a property line/easement/right of way/fence line and landfill/drainage structure/soil borrow activities consisting of trees and native and/or introduced grasses. The landscape buffer is part of the buffer defined above.

**Natural Buffer**  
An area designated between a property line/easement/right of way/fence line and landfill/drainage structure/mining activities. The natural buffer includes mature trees and natural woodland vegetation.

**Litter Fence**  
A fence, not more than 35 feet in height from finished grade, consisting of poles with netting stretched between. This litter fence is similar to large golf fence seen at golf course and/or golf driving ranges adjacent to roadways.
2 LEGAL DESCRIPTION

The legal description of the property comprising the PUD is described below, as well as in Exhibit B, and is made a part of this Design Statement.

Legal Description

A part of Section Twenty-One (21), Township Twelve (12) North, Range Two (2) West of the Indian Meridian, Oklahoma County, Oklahoma, being more particularly described as follows:

COMMENCING at the Southwest Corner of said Section 21;

THENCE N00°14’35"W, along the West line of said Section 21, a distance of 50.00 feet;

THENCE N89°52’25"E, parallel with the South line of said Section 21, a distance of 26.31 feet to the True POINT OF BEGINNING, said point being 50.00 feet East of the Centerline of Sooner Road;

THENCE parallel with and 50.00 feet East of the centerline of Sooner Road for the following 3 courses:

THENCE N00°18’39"W, a distance of 783.15 feet;

THENCE on a curve to the Right with an arc length of 753.97 feet, a radius of 3046.00 feet, a chord bearing of N06°46’50"E, a chord length of 752.05 feet;

THENCE N13°59’22"E, a distance of 1087.66 feet to a point in the East/West Quarter Section line, said point being 384.74 feet East of the Northwest corner of the Southwest Quarter of said Section 21;

THENCE N71°28’04"E, a distance of 642.57 feet;

THENCE N45°32’03"E, a distance of 886.67 feet;

THENCE N22°26’33"E, a distance of 4.40 feet;

THENCE on a curve to the Left with an arc length of 234.74 feet, a radius of 859.93 feet, a chord bearing of N14°28’05"E, a chord length of 234.01 feet;

THENCE on a reverse curve to the Right with an arc length of 3.67 feet, a radius of 30.39 feet, a chord bearing of N09°48’15"E, a chord length of 3.67 feet;
THENCE N34°13'03"E, a distance of 21.52 feet;

THENCE on a curve to the Right with an arc length of 3.55 feet, a radius of 30.78 feet, a chord bearing of N58°29'14"E, a chord length of 3.55 feet;

THENCE N61°38'14"E, a distance of 63.31 feet;

THENCE on a curve to the Right with an arc length of 13.98 feet, a radius of 30.15 feet, a chord bearing of N74°49'41"E, a chord length of 13.86 feet;

THENCE N87°47'56"E, a distance of 203.90 feet;

THENCE on a curve to the Left with an arc length of 874.50 feet, a radius of 684.99 feet, a chord bearing of N51°11'42"E, a chord length of 816.31 feet;

THENCE on a reverse curve to the Right with an arc length of 53.73 feet, a radius of 45.00 feet, a chord bearing of N48°49'43"E, a chord length of 50.60 feet;

THENCE N83°02'07"E, a distance of 311.10 feet;

THENCE S89°38'06"E, a distance of 48.13 feet;

THENCE S89°52'24"E, a distance of 460.41 feet;

THENCE S89°51'27"E, a distance of 79.56 feet;

THENCE on a curve to the Right with an arc length of 117.88 feet, a radius of 77.76 feet, a chord bearing of S46°18'36"E, with a chord length of 106.91 feet;

THENCE S01°40'27"E, a distance of 248.33 feet;

THENCE S10°46'16"E, a distance of 124.34 feet;

THENCE S16°43'49"E, a distance of 102.84 feet;

THENCE S18°51'26"E, a distance of 56.89 feet;

THENCE S08°31'07"E, a distance of 140.66 feet;

THENCE on a curve to the Right with an arc length of 27.22 feet, a radius of 70.73 feet, a chord bearing of S00°11'05"E, a chord length of 27.05 feet;

THENCE S05°00'17"W, a distance of 56.18 feet;

THENCE S30°08'26"W, a distance of 80.42 feet;

THENCE S16°26'18"W, a distance of 95.67 feet;
THENCE S45°58'54"W, a distance of 242.99 feet;
THENCE S17°52'53"W, a distance of 1461.87 feet;
THENCE S28°56'05"E, a distance of 255.64 feet;
THENCE S27°45'02"E, a distance of 67.80 feet;
THENCE S57°26'53"E, a distance of 148.98 feet;
THENCE S32°41'41"W, a distance of 885.78 feet;
THENCE S32°19'52"W, a distance of 347.85 feet;
THENCE S32°55'14"W, a distance of 213.24 feet;
THENCE S45°10'58"W, a distance of 197.54 feet;
THENCE N00°00'08"W, a distance of 284.89 feet;
THENCE S89°59'34"W, a distance of 232.06 feet;
THENCE S04°01'40"W, a distance of 137.31 feet;
THENCE S11°28'07"W, a distance of 172.36 feet;
THENCE S89°52'25"W, parallel with and 50.00 feet North of the South line of said Section 21, a distance of 600.67 feet;
THENCE N00°07'35"W, a distance of 150.00 feet;
THENCE S89°52'25"W, a distance of 225.00 feet;
THENCE S00°07'35"E, a distance of 150.00 feet;
THENCE S89°52'25"W, parallel with and 50.00 feet North of the South line of said Section 21, a distance of 1248.80 feet to the True Point of Beginning, having an area of 240.41 Acres more or less.

Basis of Bearings are Oklahoma State Plane Grid North.

Said being described by Robby L. Johnson, RPLS No. 1539 on October 25, 2017.
3 OWNER/DEVELOPER

The owner/developer of the PUD is as follows:

Waste Management of Oklahoma, Inc.
Attention: Guy R. Campbell
3201 Mosley Road
Oklahoma City, Oklahoma 73141
405-417-8124

Waste Management of Oklahoma, Inc., is a subsidiary of Waste Management, Inc. The company employs more than 40,000 employees worldwide and is the largest environmental solutions provider in North America. For over 30 years, the landfill has been a part of the community and is one of the main recipients of waste from the residents and businesses in the City and surrounding areas. Waste Management’s interest and involvement in the City does not end at their property line. Waste Management continues to support local communities through its active participation with local school districts. The landfill also serves as a key community resource during disaster relief efforts, as demonstrated during severe storm events such as the tornadoes and flooding that occurred in the City and surrounding areas in 2013.
4 SITE AND SURROUNDING AREAS

4.1 Zoning of PUD Area

As shown on Exhibit C, the subject property is currently zoned A-A, SP-53, SP-266, SP-387, PUD-1419, and PUD-1534. A topographic map and aerial photo that shows the existing conditions of the PUD area and surrounding areas is shown on Exhibit D and Exhibit E.

4.2 Zoning of Surrounding Area

The land use and zoning immediately adjacent to a portion of the proposed PUD area is related to landfill operations due to a portion of the proposed PUD area boundaries being located internal to the East Oak Recycling and Disposal Facility property. Land use and zoning of the surrounding area is shown on Exhibit A (Master Development Plan) and Exhibit C (PUD Area Zoning Map) and summarized below.

**North** – Located along the northern boundary of the East Oak Recycling and Disposal Facility is the Northeast 36th Street right-of-way, which is the access route to the facility. A closed landfill owned by the City exists to the immediate north. The area north of Northeast 36th Street area is zoned "R-1" Residential.

**East** – Located directly east of the East Oak Recycling and Disposal Facility is the Burlington Northern Santa Fe Railroad right-of-way and predominately agricultural and soil mining use within the City of Midwest City.

**West** – Located directly west of the East Oak Recycling and Disposal Facility is the N. Sooner Road right-of-way, an undeveloped woodland property owned by the City of Oklahoma City that extends to the North Canadian River, and a construction container/trucking/hauling business. The majority of the area west of N. Sooner Road is zoned "R-1" Residential. The construction container/trucking/hauling business is zoned "C-3" commercial.

**South** – Located directly south of the East Oak Recycling and Disposal Facility is scattered residencies, Northeast 23rd Street right-of-way, mining operations, and a variation of uses within the City of Midwest City.
5 PHYSICAL CHARACTERISTICS

The existing configuration of the 240.4-acre PUD area and additional Waste Management of Oklahoma, Inc. property is shown on Exhibit D (Topographic Map) and Exhibit E (Aerial Photograph).

With regard to the elevation of the property, the topography of the site generally slopes from west to east. The natural elevation of the site varies from 1,140 to 1,160 ft-msl. The existing landfill continues to be developed in accordance with the existing permitted grading plans and environmental regulations and permits. The site is borrowing soil on-site as needed from approved soil borrow areas in accordance with PUD-1419 and PUD-1534. Due to the ongoing landfill activity (i.e., the depositing of solid wastes and cover material) the elevation of any given portion of the landfill will be in constant change until the site reaches its permitted capacity.

The North Canadian River 100-year floodplain is shown on Exhibit D. The proposed site development will ensure that the solid waste disposal area is protected from the 100-year floodplain.

With regard to natural resource areas on this property, there are no native rock outcroppings, steep slopes, environmentally sensitive lands, wildlife habitats, significant mature trees, or tree canopies.
6  CONCEPT

6.1 Project Overview and Final Landfill Configuration

The concept for this PUD is to provide a Master Development Plan that will allow for the expansion of the East Oak Recycling and Disposal Facility. This PUD allows for the eventual transition of portions of a previous sand mine operation to a state-of-the-art landfill that will be operated, regulated, tested, and maintained in a safe and environmentally responsible manner. This PUD will also allow the site to utilize soil borrow and stormwater management areas. This PUD will also take advantage of buffers, natural buffers, and landscape buffers.

6.1.1 Concept

The East Oak Recycling and Disposal Facility has been developed consistent with SP-387, PUD-1419, PUD-1534, including the buffer areas, natural buffer areas, and landscaped buffer areas. The entrance to the site is currently located on Northeast 36th Street about 1,700 feet east of N. Sooner Road. In accordance with PUD-1534, the entrance facility will be relocated approximately 2,500 feet to the east to facilitate site operations. Waste Management of Oklahoma, Inc. will submit road improvement and ingress/egress design plans for review and approval by the City Public Works Department prior to entrance facility construction/relocation. Traffic patterns are not expected to change with this PUD, even with the future relocation of the site entrance facility. The landfill support facilities are also located on the site. The facilities include a site entrance facility, wheel wash, maintenance shop, and landfill gas flare. The paved entrance road and wheel wash minimize the potential for mud tracking onto area roads. Waste Management of Oklahoma, Inc. also retains a 3rd party street sweeper who sweeps Northeast 36th Street near the landfill property twice a week. The design of the landfill includes an extensive landfill gas collection and control system that removes landfill gas (LFG) before it reaches the surface and enters the atmosphere. The collected LFG is transferred to the Waste Management Gas to Liquid (GTL) Facility located on the west side of the site. The GTL Facility was approved as part of SPUD-531 and SPUD-703.

There is an access point to the landfill property along Northeast 23rd Street that is controlled by a locked gate. The site does periodically utilize this access point as a means to access their roll-off box storage areas; however, no municipal solid waste haul or soil borrow operation trucks utilize this access point.
6.2 Landfill Design and Operation Information

6.2.1 Solid Waste Containment System

A liner, leachate management, and final cover system that meet all regulatory requirements will be used for the solid waste containment system. The design objective of the containment system (liner, leachate management, and final cover system) is to isolate the solid waste and remove leachate (defined as liquid that has contacted solid waste) that collects on the liner system. Leachate that is removed from the landfill will be discharged to an off-site, permitted treatment facility. The construction procedures of the liner, leachate collection, and final cover systems follow strict ODEQ approved quality control and quality assurance procedures, which are verified by an independent testing firm. Each of the containment system components must be thoroughly reviewed and approved by the ODEQ before solid waste is placed in the future constructed portion of the landfill.

6.2.2 Environmental Monitoring Systems

To verify that the highest levels of environmental protection are maintained, the following landfill monitoring systems are provided:

- Groundwater Monitoring System. The purpose of the groundwater monitoring system is to verify the integrity of the containment system and verify that groundwater is not adversely impacted by the landfill. This is accomplished by obtaining water samples from the monitor wells, located on the perimeter of the landfill, which are screened in the uppermost saturated zone to monitor groundwater quality. The water samples are tested at an off-site laboratory.

- Landfill Gas Monitoring System. The purpose of the landfill gas monitoring system is to verify the integrity of the containment system and verify that methane gas, produced from the decomposing waste material, has not migrating beyond the permit boundary. This is accomplished by obtaining subsurface air samples from the landfill gas probes, located on the perimeter of the landfill, which are screened across potential migration pathways. The samples are tested on-site with a portable landfill gas analyzer.

- These monitoring systems are sampled and tested periodically. The results are filed with the ODEQ.

6.2.3 Stormwater Controls and Site Vegetation Requirements

Stormwater controls that meet all regulatory requirements will be used to prevent discharge of pollutants into waters of the State or waters of the United States.
A Surface Water Management Plan will be developed and approved by ODEQ. The Surface Water Management Plan will include the design of a stormwater management system. The stormwater management system will include swales, letdowns, a perimeter drainage system, and detention ponds that will convey stormwater to existing drainage features. The stormwater management system will be designed so that the landfill expansion will not significantly alter existing drainage patterns.

The site Vegetation Plan that sets forth the procedures to establish interim and permanent vegetation, pursuant to regulatory requirements will be updated and utilizes to establish vegetation on the landfill and borrow areas. Establishment of vegetation will assist with dust control and erosion control. Additional landscaping requirements for buffers around the perimeter of the site are discussed in Section 9.2.

**6.2.4 Air Quality and Odor Control Plan (Dust Control Plan)**

East Oak Recycling and Disposal Facility is subject to New Source Performance Standards (NSPS) Subpart WWW for landfills and is currently operating under a Title V permit. Under the NSPS, the site is required to install a landfill gas collection and control system (GCCS).

In addition to using the GCCS to control potential landfill gas (LFG) odors, potential odors for landfill operations will be controlled through means of earthen material daily cover or approved Alternative Daily Cover (ADC). Earthen material or ADC will be placed over exposed solid waste at the end of each operating day or more frequently, if needed.

Dust resulting from vehicular traffic construction activity and landfill operations will be kept to a minimum within the property through the utilization of a water truck, road base material, and/or vegetation establishment. The site water truck is utilized throughout the day to apply water to various haul roads throughout the site. The water truck typically utilizes a connection to a City water utility line; however, the site periodically utilizes stormwater collected on-site. During the life of the landfill and soil borrow areas, water will be applied to the access roads to control dust on a daily basis, except on days of measurable precipitation or when temperatures are at or below freezing.

In addition, several of the site haul roads are covered with various road base materials, including the main site entrance road which is paved with concrete and the top deck access road which has been covered with gravel. Finally, as portions of the landfill are developed to final grade, final or temporary vegetation is established through means of seeding or sodding.
6.2.5 Site Operations

A detailed site operating plan will be included in the ODEQ landfill expansion permit application. The plan will detail the required equipment, personnel, and safety procedures required to operate the site in accordance with ODEQ regulations. The site will continue to provide solid waste disposal service six days a week and the active landfill area will be covered at the end of each workday to prevent potential nuisance conditions such as odors and vectors.
7 SERVICE AVAILABILITY

7.1 Streets

Northeast 36th Street, Northeast 23rd Street and North Sooner Road, are adjacent to the site. However, only Northeast 23rd Street and North Sooner Road are adjacent to the PUD area. Access to the site will be limited to entrance from the existing access road located on Northeast 36th Street. As previously discussed, the entrance to the site is currently located on Northeast 36th Street about 1,700 feet east of North Sooner Road. In accordance with PUD-1534 the entrance facility will be relocated approximately 2,500 feet east to facilitate site operations. Waste Management of Oklahoma, Inc. will submit road improvement and ingress/egress design plans for review and approval by the City Public Works Department prior to entrance facility construction/recollection. There is an access point to the landfill property along Northeast 23rd Street that is controlled by a locked gate. The site does periodically utilize this access point as a means to access their roll off box storage areas, however no municipal solid waste haul or soil borrow operation trucks utilize this access point.

The landfill owner/developer will remove dirt and debris caused by vehicles/equipment using the landfill/soil borrow from Northeast 36th Street adjacent to the site entrance. Waste Management of Oklahoma, Inc. also retains a 3rd party street sweeper who sweeps Northeast 36th Street near the landfill property twice a week.

7.2 Sanitary Sewer

Sanitary sewer utilities are available to serve the existing site entrance facilities and maintenance shop through means of an existing septic tank. The site also has a City sanitary sewer connection for leachate and condensate disposal.

7.3 Water

Water utilities are available to serve the site at the existing site entrance facilities and maintenance shop.
7.4 Fire Protection

Fire protection is presently available from the Forest Park Fire Department located at 4203 N. Coltrane Road. Back-up fire protection is also available from the Spencer Fire Department located at 8310 Northeast 36th Street, Spencer, Oklahoma, and the Midwest City Fire Department Station 3 located at 420 W Blueridge Dr, Midwest City, Oklahoma, and the Oklahoma City Fire Department Station 18 located at 4116 N. Prospect Ave., Oklahoma City, Oklahoma.

7.5 Gas Service, Electrical Service, and Telephone Service

Proper coordination with the various utility companies will be made in conjunction with this development.

7.6 Public Transportation

There are three bus stops on the roads adjacent to the PUD. Bus Stop ID: 3502 and 2742 are located at the intersection of Northeast 23rd Street and North Sooner Road, the southwest corner of the PUD area. Bus Stop ID: 3910 is located on Northeast 23rd Street at the southeast corner of the PUD area.

7.7 Drainage

East Oak Recycling and Disposal Facility is currently operating consistent with the approved FEMA Conditional Letter of Map Revision (CLOMR) that was approved by the City in February 2016 and FEMA (FEMA Case No. 16-06-1732R) in September 2016. The proposed development does include a modification of the current 100-year floodplain. Prior to development in this area, a CLOMR will be submitted to the Oklahoma City Floodplain Administrator to obtain a floodplain permit and FEMA approval of the proposed design.
8 SPECIAL DEVELOPMENT REGULATIONS

The following Special Development Regulations and/or limitations are placed upon the development of the PUD. Planning and zoning regulations will be those, which are in effect at the time of development of this PUD. Certain zoning districts are referred to as a part of the Special Development Regulations of this PUD. For purpose of interpretation of these Special Development Regulations, the operative and controlling language and regulations of such zoning districts shall be the language and regulations applicable to the referenced zoning districts as contained in the City of Oklahoma City's Planning and Zoning Code as such exists at the time this PUD is approved. In the event of conflict between provisions of this PUD and any of the provisions of the Oklahoma City Municipal Code, the provisions of this PUD will apply and be controlling; provided however that in the event of a conflict between the Special Use and Development Regulations specifically negotiated as a part of this PUD and the provisions of the Code in effect at time a permit is applied for with respect to any lot, block tract and/or parcel of land subject to this PUD, such Special Use and Development Regulations of this PUD shall prevail and be controlling.

Notwithstanding Section 59-14250.1 of the Oklahoma City Municipal Code, 2010, as amended, pertaining to administrative approval of minor amendments, the following special conditions listed in Sections 8.1 through 10.0 shall not be changed or amended in any way except by action of the City Council, after review and recommendation by the Planning Commission.

8.1 Use and Development Regulations

The use and development regulations of the I-2 Moderate Industrial District as of the date of approval of the PUD shall govern this PUD, except as herein modified, including accessory uses subject to their appropriate conditions and review procedures for public hearings where applicable, unless otherwise noted herein.

The following represents variations to the City of Oklahoma City Subdivision Regulations proposed in this PUD: None.

The following represents variations to the I-2 Moderate Industrial base zoning district and/or other sections of the Oklahoma City zoning ordinance.

- All setbacks are shown on Exhibit A.
- Hard surface paving is not required for internal drives, required parking and/or outdoor storage.
- Recyclable material will be stored in rolloffs and in a manner to control vectors, prevent odors, prevent windblown material/litter, prevent fires and ensure safety.

### 8.2 Special Provisions

The following additional uses are permitted by right within this PUD:

- **Sanitary landfill (8350.12)** and auxiliary uses including leachate, gas collection, and stormwater management. Leachate, gas collection and stormwater management facilities may be relocated in the future to facilitate site operations.

- Uses accessory to the sanitary landfill use, including recycling and reuse of materials, equipment, maintenance/repair/washing/fueling, office/scalehouse facilities (including relocation of existing facilities), fuel storage, etc.

- **Recycling Collection and Processing Facility (8350.11)** and auxiliary uses including the collection, storage, processing, and transfer of recycling and reuse materials.

- **Mining and processing**: Minerals and raw materials (8450.1) to be utilized to facilitate site operations including but not limited to liner construction, final cover construction, drainage structure construction, etc.

- **Heavy Public Protection and Utility (8250.9)** and auxiliary uses including landfill gas flare facilities. The landfill gas flare facilities may be relocated in the future to facilitate site operations.

- **Automotive and Equipment**: Heavy Repairs, Heavy Equipment (8300.15) and auxiliary uses including maintenance, repair, fueling, washing of site operation equipment.

- **Above Ground Flammable Liquid Storage**: General (8350.1) and auxiliary uses including storage in portable or permanent above ground tanks at volumes above 10,000 gallons for maintenance and operation of site equipment.

Sanitary landfill use is allowed within this PUD; application for a special use permit is not required when an additional part of the PUD property is developed as a solid waste disposal area. The solid waste disposal areas will be designed and constructed consistent with the Master Development Plan shown in Exhibit A. However, each solid waste disposal area shall meet the following conditions:

- All setbacks are shown on Exhibit A.

- A fence or natural barrier shall be provided at the perimeter of the PUD property.
Site will remain open during business hours but access will be denied after hours with a locked gate.

Minimum setbacks between any solid waste disposal area and any highway, drainage canal, lake, stream, navigable waterway, regulatory floodway or property line shall be as shown on Exhibit A, Master Development Plan.

All buildings and structures accessory to the operation shall comply with all applicable city codes with the exception that hard surface paving is not required.

After the solid waste disposal areas have reached their proposed grades, the solid waste disposal site will be closed in accordance with regulatory closure and postclosure requirements consistent with the Master Development Plan shown on Exhibit A.

Recycling collection and processing is allowed within this PUD; application for a special use permit is not required if the collection and processing of reusable materials is done with the intent for reuse, remanufacture, or reconstruction. Recycling collection and processing will meet the following conditions:

- The materials will not be displayed for sale.
- Recyclable materials will not include refuse or hazardous materials.
- Recyclable materials will not be stored in a quantity exceeding that which could be reasonably expected to be used or recycled.

Mining and processing: Minerals and raw materials use is allowed within this PUD; application for a special use permit is not required as long as the area that is developed for a soil borrow area is developed consistent with the grades of a future excavation for a solid waste disposal area or an area that is used for a stormwater management structure. The solid waste disposal area and related stormwater management facilities will be designed and constructed consistent with the Master Development Plan shown on Exhibit A. However, each soil borrow area shall meet the following conditions:

- After the soil borrow area is completed it will be converted to its final intended use as either a solid waste disposal area or stormwater management structure, consistent with the Master Development Plan in Exhibit A. Soil borrow areas shall be closed in accordance with regulatory closure and postclosure requirements.
- No excavation, stockpiling of material or accessory or incidental use of the mining operation shall be permitted within 75 feet of any property line, street right of way line or drainage or utility easement, except in areas that received previous approval for soil borrow operations (PUD-1419 and PUD-1534) as shown on the Master Development Plan marked as Exhibit A, in which case the boundary will be 30 feet.
The soil borrow areas support the operation of the landfill by providing soil that is used to cover solid waste on a daily basis and for the landfill's liner and final cover systems.

Heavy public protection and utility use is allowed within this PUD; application for a special use permit is not required for a landfill gas flare facilities. The landfill gas flare facility shall meet the following conditions:

- All maintenance, repair, and mechanical work shall be performed in enclosed buildings.
- There shall be a 50-foot setback from any Residential District for any off-street parking or loading spaces.
- No heavy public protection and utility use shall be permitted within 500 feet of an occupied dwelling.

Automotive and equipment repair/maintenance is allowed within this PUD; application for a special permit is not required if the repair/maintenance is for site operation equipment purposes.

Aboveground flammable liquid storage is allowed within this PUD; application for a special use permit is not required if the liquid stored is for site operation purposes. Aboveground flammable liquid storage tanks will meet the following conditions:

- The setback for any aboveground storage tank shall be not less than one-hundred (100) feet from any property boundary.
- The aboveground tanks will be used for maintenance and operation of site equipment only.
- The aboveground tanks will meet all local, state, and federal requirements and standards.
9 SPECIAL CONDITIONS

The special conditions included in the following section shall be made part of this PUD.

9.1 Façade Regulations

Future constructed building facades will be in accordance with regulations of the "I-2" Moderate Industry District.

9.2 Landscaping Regulations

The following landscaping provisions shall apply to this PUD:

9.2.1 Landscape Buffers

This PUD will take advantage of buffers, natural buffers, and landscape buffers previously established in accordance with SP-387, PUD-1419, and PUD-1534. Additionally the following buffers will be established along North Sooner Road and Northeast 23rd Street. Landscape buffers as depicted on the Master Development Plan (Exhibit A) and Planting Plan (Exhibit G), shall be established and/or maintained as a part of the development of this PUD.

- West Side: A 75-foot landscape buffer shall be established for the PUD area abutting North Sooner Road. The landscape buffer will be two (2) rows of trees a minimum of six feet (6') tall with a minimum 3-inch caliper so that there shall be an average of one (1) tree planted for every thirty feet (30') of length of said boundary.

- South Side, West End: A 75-foot landscape buffer shall be established for the PUD area abutting Northeast 23rd Street. The landscape buffer will be two (2) rows of trees a minimum of six feet (6') tall with a minimum 3-inch caliper so that there shall be an average of one (1) tree planted for every thirty feet (30') of length of said boundary.

- South Side, East End: A 75-foot natural buffer is currently established for the PUD area abutting Northeast 23rd Street. The natural buffer includes mature trees and natural woodland vegetation.
9.2.2 Landscape Buffer Vegetation

If trees in the existing landscaped buffers need to be replaced, the following are typical trees that are recommended for planting per "Landscape Guideline for The Selection, Care and Maintenance of Trees In Central Oklahoma" provided by the City of Oklahoma City.

- Bald Cypress-Taxodium distichum
- Cottonwood, Cottonless-Populus deltoids
- Ginkgo (male)-Ginkgo biloba
- Hackberry-Celtis occidentalis
- Honeylocust, Thornless-Gleditsia triacanthos
- Kentucky Coffee Tree-Gymnocladus dioica
- Linden, Greenspire-Tilia cordata
- London Planetree-Platanus x acerifolia
- Oak, Bur-Quercus macrocarpa
- Oak, Chinquapin-Quercus muehlenbergii
- Oak, Shumard-Quercus shumardii
- Oak, Water-Quercus nigra
- Sweetgum, Fruitless-Liquidambar styraciflua
- Zelkova, Japanese-Zelkova serrata
- Birch, River-Betula nigra
- Chinese Pistache-Pistacia chinensis
- Chittamwood-Bumelia lanuginose
- Elm, Lacebark-Ulmus parvifolia
- Hawthorn, Washington-Crataegus phaenopyrum
- Japanese Pagoda Tree-Styphnolobium japonicum
- Maple, Caddo-Acer saccharum
- Maple Hedge-Acer campestre
- Mulberry, Fruitless-Morus alba
- Oak, Sawtooth-Quercus acutissima
- Osage Orange-Maclura pomifera
- Russian Olive-Eleagnus angustifolia
- Western Soapberry-Sapindus drummondii
- Deciduous Holly-Ilex decidua
- Euonymus, Winterberry-Euonymus bungeana
- Maple, Amur-Acer tataricum ssp. ginnala
- Maple Shantung-Acer truncatum
- Willow, Desert-Chilopsis linearis

Other trees (particularly evergreens) and crepe myrtle (Lagerstroemia) may be planted given that climatological factors, maintenance, plant care, and/or soil testing show that the trees are adequate for the area.

Native and introduced grasses, if not already established, will be established within the buffer zones and excavation sideslopes. The grasses will be maintained until the
seeded areas provide for coverage of 85 percent ground cover and no bare areas larger than one square foot of the established species.

After vegetation is established in an area it will be inspected on an annual basis. The vegetation cover will be capable of self-regeneration and will require no maintenance. If bare spots develop, then the area will be re-seeded and maintained (e.g., watered and fertilized).

A typical seed mixture is presented in Table 9-1.

<table>
<thead>
<tr>
<th>Spring Seeding Mixture</th>
<th>Minimum Percent Pure Live Seed Required</th>
<th>Pounds Per Live Seeds Required Per Acre</th>
</tr>
</thead>
<tbody>
<tr>
<td>Common Bermuda Grass</td>
<td>85</td>
<td>12</td>
</tr>
<tr>
<td>Blue Stem</td>
<td>65</td>
<td>4</td>
</tr>
<tr>
<td>Side Oats Grama</td>
<td>65</td>
<td>6</td>
</tr>
<tr>
<td>Rye</td>
<td>85</td>
<td>4</td>
</tr>
<tr>
<td>Dormant Seeding</td>
<td>85</td>
<td>27</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>53</td>
</tr>
</tbody>
</table>

(1) The mixtures shown in Table 9-1 are for reference purposes only. Other mixtures may also be used.

(2) To assure that permanent vegetation is established, dormant seeding will be included in the seeding mixture used on the facility (i.e., if planting a fall seeding mixture, a portion of the mixture will include dormant seeds for spring).

Vegetation will be planted on the landfill’s final cover system in accordance with the ODEQ approved site vegetation plan.

9.3 Lighting Regulations

No residential properties are adjacent to the site entrance facilities to the north, nor are the current site entrance facilities adjacent to the Northeast 36th Street. No residential properties are currently adjacent to the future site entrance location as well. There is no anticipated light use in the PUD area, however if required outdoor lights related to commercial uses will be directed away from any adjacent residential properties and will utilize shields, shades or other appropriate methods of directing light beams.

9.4 Screening Regulations

A sight-proof fence will not be required along any property line. The landscape buffer as depicted on the Master Development Plan (Exhibit A) and Planting Plan...
(Exhibit G) shall be established and/or maintained as part of the development of this PUD.

### 9.5 Platting Regulations

A specific plan and final plat pursuant to Chapter 59, Section 14150C of the Oklahoma City Municipal Code, 2010, as amended are not required for Sanitary Landfill use and/or Mining and Minerals Processing use. The Master Development Plan (Exhibit A) is provided in place of the specific plat.

### 9.6 Drainage Regulations

Private drainage ways are allowed within the East Oak Recycling and Disposal Facility PUD area.

Drainage improvements, if required, will be in accordance to the applicable sections of the Oklahoma City Code of Ordinances. Private drainageways will be permitted and constructed in accordance with Chapter 16 of the Oklahoma City Municipal Code which includes certain allowances in construction standards for PUDs. Such private drainageways must be designed to handle adequate flows and cannot be built without specific approval of the City Engineer and the ODEQ. The maintenance will be the responsibility of the property owner(s).

As a solid waste disposal area develops, additional detention/ sedimentation ponds may be added around the perimeter. Such ponds shall meet applicable city, state and federal regulations.

Development of this parcel will comply with Chapter 16 of the Oklahoma City Municipal Code, 2010, as amended.

Development within the 100-year floodplain is subject to approval from FEMA and the Oklahoma City Floodplain Administrator.

### 9.7 Dumpster Regulations

Dumpsters shall be located within an area screened by a fence or masonry wall of sufficient height that screens the dumpster from public streets and residences and shall be placed no closer than 50 feet from all property lines adjacent to residential use.
9.8 Access Regulations

Northeast 36th Street, North Sooner Road, and Northeast 23rd Street are adjacent to the site. However, only North Sooner Road, and Northeast 23rd Street are adjacent to the PUD area. Access to the site will be limited to the access road located on Northeast 36th Street. In addition, vehicles/equipment used to borrow/transport soil from the soil borrow area to the adjacent landfill area for operational purposes (i.e., daily/intermediate cover, final cover, and liner materials) will not access any public street but rather will be limited to internal site haul roads. Internal access drives and storage areas are not required to have hard surface paving and may consist of gravel, asphalt millings and/or other alternative surfacing materials. There is an access point the landfill property along Northeast 23rd Street that is controlled by a locked gate. The site does periodically utilize this access point as a means to access their roll-off box storage areas; however, no municipal solid waste or soil operation haul trucks utilize this access point.

9.9 Parking Regulations

The design and number of all future parking facilities within this PUD shall be in accordance with Chapter 59 Article X of the Oklahoma City Municipal Code 2010, as amended, provided that required parking aisles and spaces are permitted to have gravel surfacing or other surface as described in Section 9.8.

9.10 Signage Regulations

Freestanding signs that are used to convey information associated with the operation of the landfill are limited to 1 in number at the entrance of the facility on Northeast 36th Street, with a maximum 8 foot height, 100 square foot size.

9.11 Roofing Regulations

Any newly constructed structures in the PUD will have a class C roofing or better.

9.12 Sidewalk Regulations

There are no proposed sidewalks located on the PUD.
9.13 Height Regulations

Maximum height of the sanitary landfill area at completion shall not exceed an elevation of 1,460 ft-msl feet as shown on the landfill completion plan attached as Exhibit F.

9.14 Setback Regulations

Minimum setback for waste disposal areas from the perimeter of the PUD area development is shown on the Master Development Plan in Exhibit A.

9.15 Permit Requirements

There are no proposed buildings located on the PUD.

9.16 Public Improvements

Public improvements shall be made by the property owner throughout the PUD as required by the City of Oklahoma City Public Works Department or other City, County, or State Department or agency. All local, State, and Federal ordinances as they shall apply to the site will be adhered to fully.

9.17 Common Areas

There are no common areas located within the PUD.

9.18 General Design and Development Guidelines

No Specific Plan is required in this PUD.

9.19 Specific Plan and Final Plat

No Specific Plan or final plat is required in this PUD.
10 DEVELOPMENT SEQUENCE

Development phasing shall be allowed as part of this PUD.
11 EXHIBITS

The following exhibits are hereby attached and incorporated into this PUD. These exhibits are:

- EXHIBIT A Master Development Plan
- EXHIBIT B Legal Description
- EXHIBIT C PUD Area Zoning Map
- EXHIBIT D Topographic Map
- EXHIBIT E Site Aerial Photograph
- EXHIBIT F PUD Concept
- EXHIBIT G Planting Plan
EXHIBIT B

Legal Description for 2017 PUD

A part of Section Twenty-One (21), Township Twelve (12) North, Range Two (2) West of the Indian Meridian, Oklahoma County, Oklahoma, being more particularly described as follows:

COMMENCING at the Southwest Corner of said Section 21;
THENCE N00°14'35"W, along the West line of said Section 21, a distance of 50.00 feet;
THENCE N89°52'25"E, parallel with the South line of said Section 21, a distance of 26.31 feet to the True POINT OF BEGINNING, said point being 50.00 feet East of the Centerline of Sooner Road;
THENCE parallel with and 50.00 feet East of the centerline of Sooner Road for the following 3 courses:
THENCE N00°18'39"W, a distance of 783.15 feet;
THENCE on a curve to the Right with an arc length of 753.97 feet, a radius of 3046.00 feet, a chord bearing of N06°46'50"E, a chord length of 752.05 feet;
THENCE N13°59'22"E, a distance of 1087.66 feet to a point in the East/West Quarter Section line, said point being 384.74 feet East of the Northwest corner of the Southwest Quarter of said Section 21;
THENCE N71°28'04"E, a distance of 642.57 feet;
THENCE N45°32'03"E, a distance of 886.67 feet;
THENCE N22°26'33"E, a distance of 4.40 feet;
THENCE on a curve to the Left with an arc length of 234.74 feet, a radius of 859.93 feet, a chord bearing of N14°28'05"E, a chord length of 234.01 feet;
THENCE on a reverse curve to the Right with an arc length of 3.67 feet, a radius of 30.39 feet, a chord bearing of N09°48'15"E, a chord length of 3.67 feet;
THENCE N34°13'03"E, a distance of 21.52 feet;
THENCE on a curve to the Right with an arc length of 3.55 feet, a radius of 30.78 feet, a chord bearing of N58°29'14"E, a chord length of 3.55 feet;
THENCE N61°38'14"E, a distance of 63.31 feet;
THENCE on a curve to the Right with an arc length of 13.98 feet, a radius of 30.15 feet, a chord bearing of N74°49'41"E, a chord length of 13.86 feet;
THENCE N87°47'56"E, a distance of 203.90 feet;
THENCE on a curve to the Left with an arc length of 874.50 feet, a radius of
684.99 feet, a chord bearing of N51°11'42"E, a chord length of 816.31 feet;
THENCE on a reverse curve to the Right with an arc length of 53.73 feet, a
radius of 45.00 feet, a chord bearing of N48°49'43"E, a chord length of 50.60
feet;
THENCE N83°02'07"E, a distance of 311.10 feet;
THENCE S89°38'06"E, a distance of 48.13 feet;
THENCE S89°52'24"E, a distance of 460.41 feet;
THENCE S89°51'27"E, a distance of 79.56 feet;
THENCE on a curve to the Right with an arc length of 117.88 feet, a radius of
77.76 feet, a chord bearing of S46°18'36"E, with a chord length of 106.91 feet;
THENCE S01°40'27"E, a distance of 248.33 feet;
THENCE S10°46'16"E, a distance of 124.34 feet;
THENCE S16°43'49"E, a distance of 102.84 feet;
THENCE S18°51'26"E, a distance of 56.89 feet;
THENCE S08°31'07"E, a distance of 140.56 feet;
THENCE on a curve to the Right with an arc length of 27.22 feet, a radius of
70.73 feet, a chord bearing of S00°11'05"E, a chord length of 27.05 feet;
THENCE S05°00'17"W, a distance of 56.18 feet;
THENCE S30°08'26"W, a distance of 80.42 feet;
THENCE S16°26'18"W, a distance of 95.67 feet;
THENCE S45°58'54"W, a distance of 242.99 feet;
THENCE S17°52'53"W, a distance of 1461.87 feet;
THENCE S28°56'05"W, a distance of 255.54 feet;
THENCE S27°45'02"W, a distance of 67.80 feet;
THENCE S57°26'53"W, a distance of 148.98 feet;
THENCE S32°41'41"W, a distance of 885.78 feet;
THENCE S32°19'52"W, a distance of 347.85 feet;
THENCE S32°55'14"W, a distance of 213.24 feet;
THENCE S45°10'58"W, a distance of 197.54 feet;
THENCE N00°00'08"W, a distance of 284.89 feet;
THENCE S89°59'34"W, a distance of 232.06 feet;
THENCE S04°01'40"W, a distance of 137.31 feet;
THENCE S11°28'07"W, a distance of 172.36 feet;
THENCE S89°52'25"W, parallel with and 50.00 feet North of the South line of
said Section 21, a distance of 600.67 feet;
THENCE N00°07'35"W, a distance of 150.00 feet;
THENCE S89°52'25"W, a distance of 225.00 feet;
THENCE S00°07'35"E, a distance of 150.00 feet;
THENCE S89°52'25"W, parallel with and 50.00 feet North of the South line of
said Section 21, a distance of 1248.80 feet to the True Point of Beginning,
having an area of 240.41 Acres more or less.

Basis of Bearings are Oklahoma State Plane Grid North.
Said being described by Robby L. Johnson, RPLS No. 1539 on October 25,
2017.
Existing Permitted Condition

Proposed Condition

Legend
- Proposed PUD Boundary
- Existing Permit Boundary
- Property Boundary
- City of Oklahoma City Limits
- Burlington Northern Santa Fe Railroad
- Landfill Perimeter Road
- Stormwater Detention Ponds

1. The existing soil borrow areas to the northwest and south will transition to the landfill expansion area.

As shown on Exhibit G the existing buffer, natural buffer and, landscape buffer area will continue to provide a visual buffer between the landfill and the PUD boundary.

Exhibit F
PUD Concept

East Oak Recycling and Disposal Facility
Prepared By: Weaver Consultants Group
December 2017