



Kennecott Permit

Jennifer Robinson
Environmental Engineer
(801) 538-9449



- Summary of Outfalls

- How limits were developed for each Outfall

- Summary of limits

- Summary of effluent data

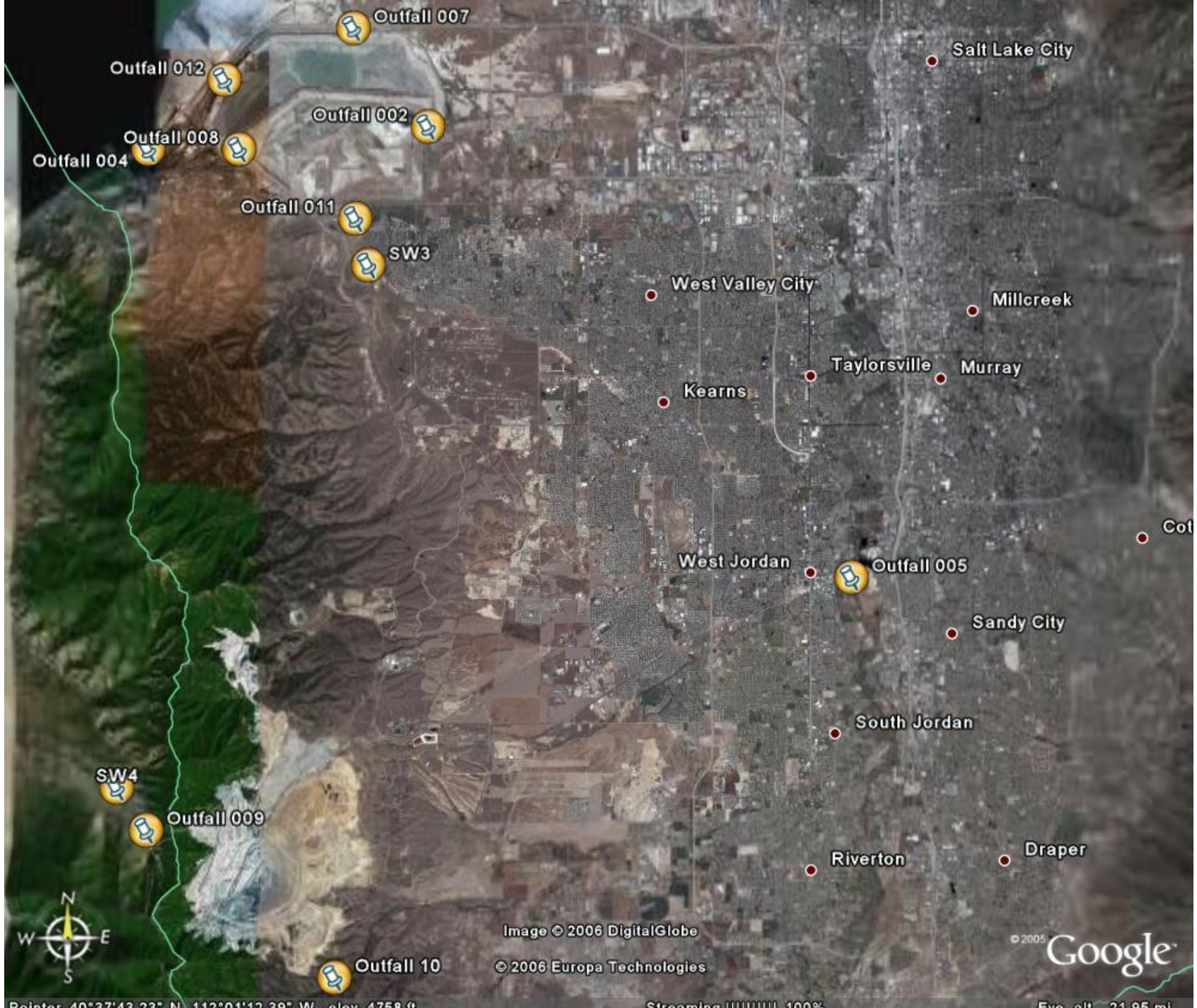


Summary of Outfalls

- 002 receiving water C-7 Ditch
- 004 receiving water I-80 culvert to GSL
- 005 receiving water Jordan River
- 007 receiving water C-7 Ditch
- 008 receiving water GSL
- 009 receiving water Pine Canyon Creek, Tooele County
- 010 receiving water Butterfield Creek
- 011 receiving water Ritter-Utah Salt Lake Canals
- 012 receiving water GSL
- SW3 receiving water Little Valley Wash
- SW4 receiving water Pine Canyon Creek, Tooele County

Stream Classification

- Class 2B - Protected for secondary contact recreation such as boating, wading, or similar uses.
- Class 3A- Protected for cold water species of game fish and other cold water aquatic life, including the necessary aquatic organisms in their food chain.
- Class 3D - Protected for waterfowl, shore birds and other water oriented wildlife not included in Class 3A, 3B, or 3C, including the necessary aquatic organisms in their food chain.
- Class 3E - Severely habitat-limited waters. Narrative standards will be applied to protect these waters for aquatic wildlife.
- Class 4 - Protected for agricultural uses including irrigation of crops and stock watering.
- Class 5 - The Great Salt Lake. Protected for primary and secondary contact recreation, aquatic wildlife, and mineral extraction.



Salt Lake City

Outfall 012

Outfall 007

Outfall 002

Outfall 008

Outfall 004

Outfall 011

SW3

West Valley City

Millcreek

Kearns

Taylorsville

Murray

Cot

West Jordan

Outfall 005

Sandy City

South Jordan

SW4

Outfall 009

Riverton

Draper

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Pointer: 40°37'43.23" N, 112°01'42.39" W, elev. 4758 ft

Streaming 100%

Eye alt: 21.95 mi



Outfall 007

Outfall 012

Outfall 002

Outfall 008

Outfall 011

Magna

SW3

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Outfall 002 and 007

- Receiving Stream C-7 Ditch
- Stream Classification Class 3E
- Cu, Pb, Ag, Cd and Mo 40 CFR 440.102 and 40 CFR 440.103
- pH Utah Secondary Standards
- As, Zn and CN previous permit
- Hg 40 CFR 440
- Se Interim limit US Army Corps of Engineers 404 Permit





Outfall 007

Outfall 012

Outfall 002

Outfall 008

Outfall 011

Magna

SW3

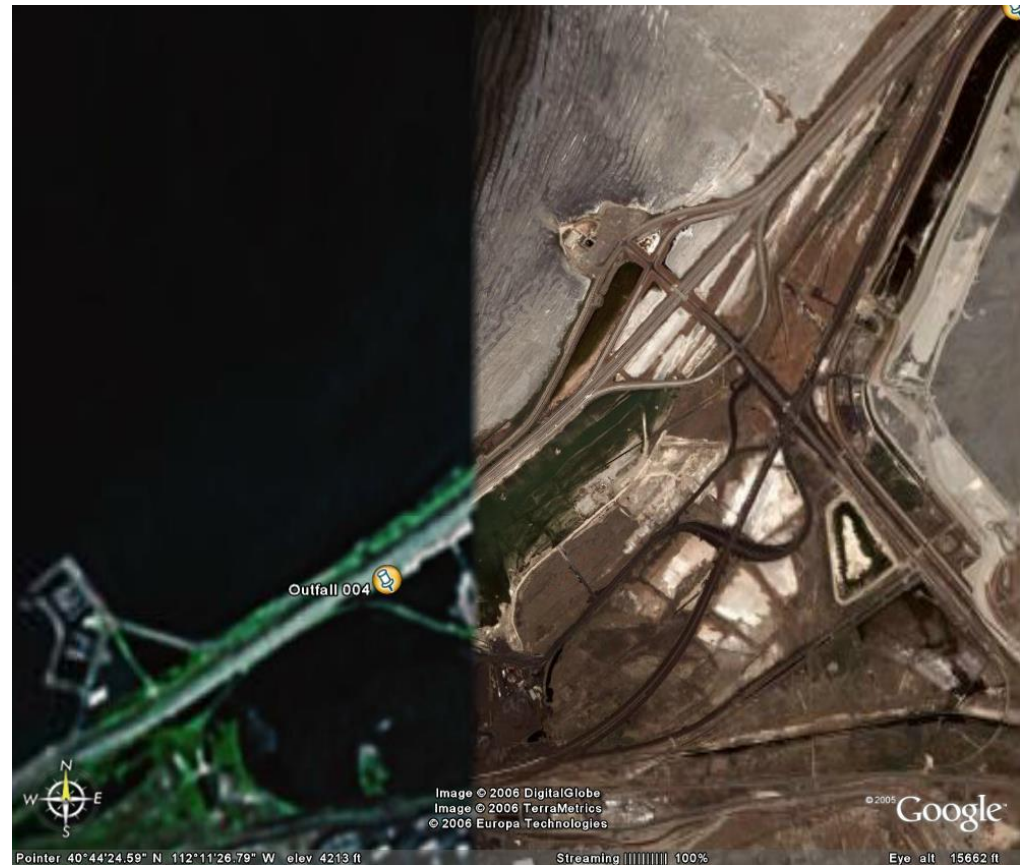
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Outfall 004 and 008

- Receiving Stream I-80 Culvert to GSL for Outfall 004
- Receiving Stream GSL for Outfall 005
- Stream Classification Class 5
- Cu, Pb, Ag, Cd and Mo 40 CFR 440.102 and 40 CFR 440.103
- pH Utah Secondary Standards
- As and Zn previous permit
- Hg 40 CFR 440
- Se Interim limit US Army Corps of Engineers 404 Permit





Outfall 007

Outfall 012

Outfall 002

Outfall 008

Outfall 011

Magna

SW3

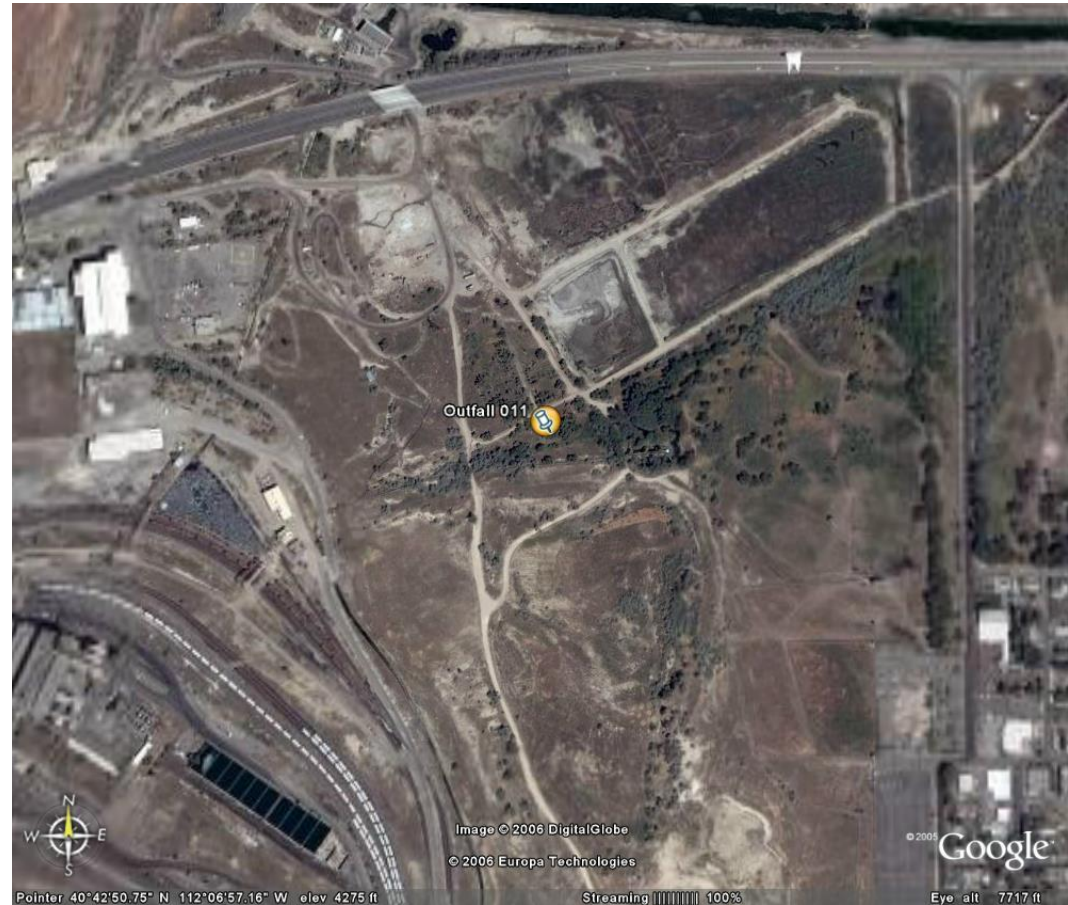
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Outfall 011

- Receiving Stream Ritter-Utah Salt Lake Canal
- Stream Classification Class 5
- Cu and Zn 40 CFR 440.102 and 40 CFR 440.103
- pH Utah Secondary Standards
- As and Se are based upon ground water permit
- Cd and Pb are BPJ (best professional judgment)





Outfall 007

Outfall 012

Outfall 002

Outfall 008

Outfall 011

Magna

SW3

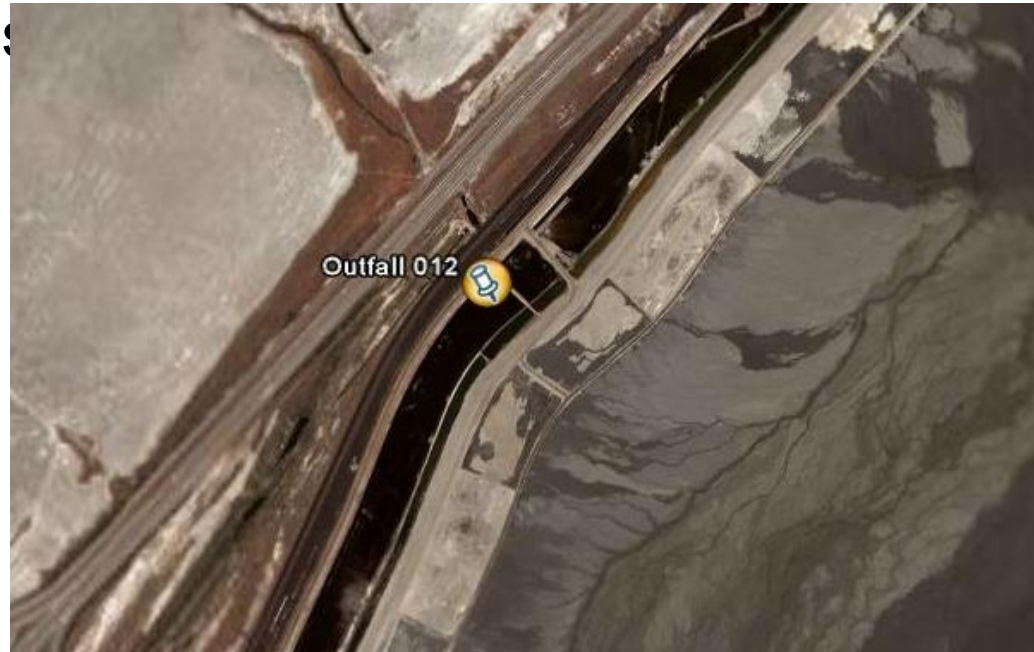
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Outfall 012

- Receiving Stream Great Salt Lake
- Stream Classification Class 3E
- Cu, Pb, Ag, Cd and Mo 40 CFR 440.102 and 40 CFR 440.103
- pH Utah Secondary Standards
- As, Zn and CN previous permit
- Hg 40 CFR 440
- Se Interim limit US Army Corps of Engineers 404 Permit





Salt Lake City

Outfall 012

Outfall 007

Outfall 002

Outfall 008

Outfall 004

Outfall 011

SW3

West Valley City

Millcreek

Kearns

Taylorsville

Murray

Cot

West Jordan

Outfall 005

Sandy City

South Jordan

SW4

Outfall 009

Riverton

Draper

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Pointer: 40°37'43.23" N, 112°01'42.38" W, elev. 4758 ft

Streaming 100%

Eye alt: 21.95 mi

Outfall 005

- Receiving Stream
Jordan River
- Stream Classification
Class 2B, 3A and 4
- Limits were
developed using
WLA, 40 CFR 440,
Utah Secondary
Standards and
previous permit
- Cd, Cu, Pb, Hg, Fe
and Se based on
new WLA





Salt Lake City

Outfall 012

Outfall 007

Outfall 002

Outfall 008

Outfall 004

Outfall 011

SW3

West Valley City

Millcreek

Kearns

Taylorsville

Murray

Cot

West Jordan

Outfall 005

Sandy City

South Jordan

SW4

Outfall 009

Riverton

Draper

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Pointer: 40°37'43.23" N, 112°01'42.38" W, elev. 4758 ft

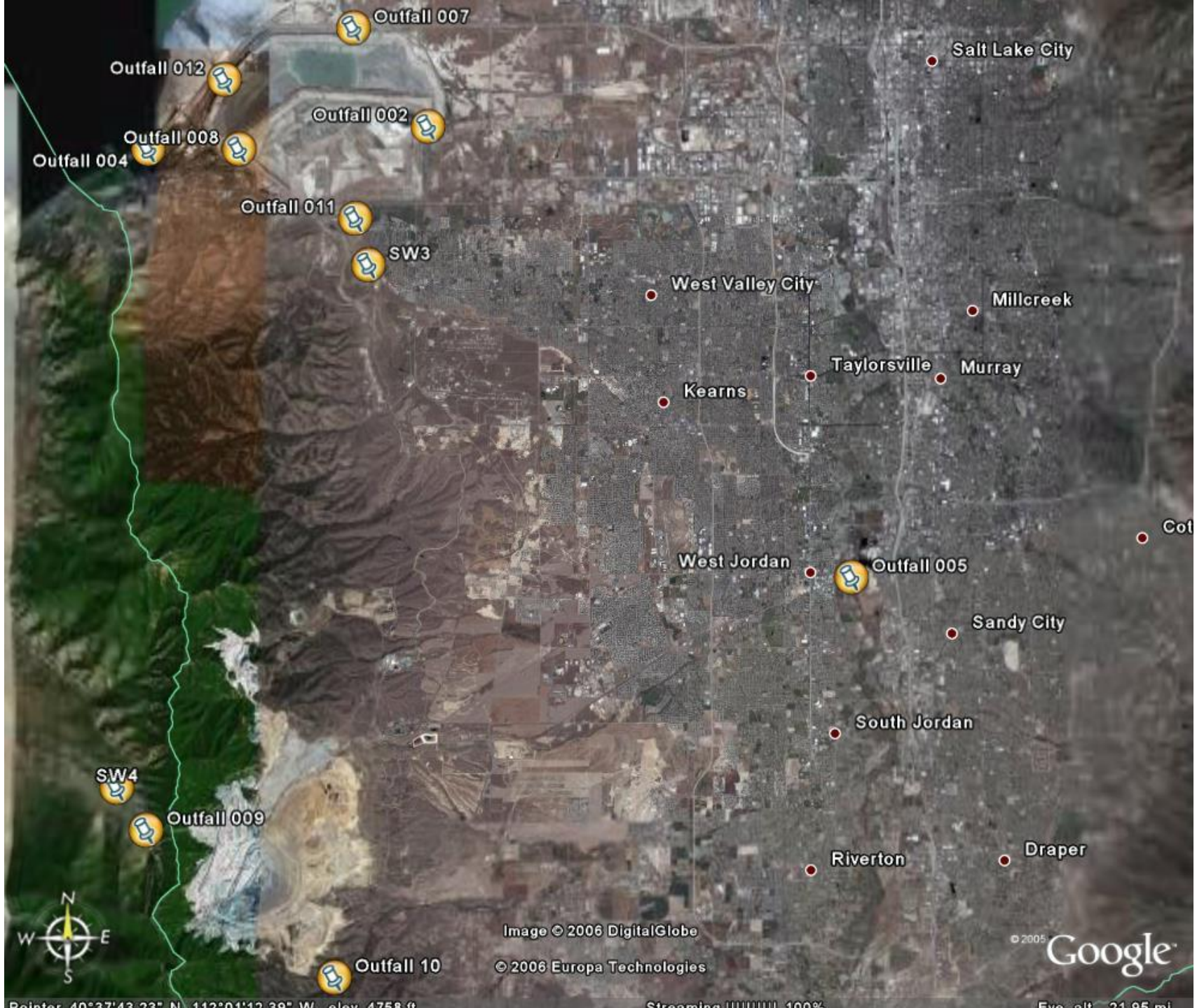
Streaming 100%

Eye alt: 21.95 mi

Outfall 009

- Receiving Stream Pine Canyon Creek, Tooele County
- Stream Classification Class 2B and 3D
- Cu, Pb, Ag, Cd and Mo 40 CFR 440.102 and 40 CFR 440.103
- pH Utah Secondary Standards
- As and Zn previous permit
- Hg 40 CFR 440
- Se Interim limit US Army Corps of Engineers 404 Permit





Salt Lake City

Outfall 012

Outfall 007

Outfall 002

Outfall 008

Outfall 004

Outfall 011

SW3

West Valley City

Millcreek

Kearns

Taylorsville

Murray

Cot

West Jordan

Outfall 005

Sandy City

South Jordan

SW4

Outfall 009

Riverton

Draper

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Pointer: 40°37'43.23" N, 112°01'42.38" W, elev. 4758 ft

Streaming 100%

Eye alt: 21.95 mi

Outfall 010

- Receiving Stream
Butterfield Creek
- Stream
Classification Class
2B, 3D and 4
- Limits were
developed using
WLA, 40 CFR 440,
Utah Secondary
Standards and
previous permit

