STATE OF UTAH
DIVISION OF WATER QUALITY
DEPARTMENT OF ENVIRONMENTAL QUALITY
SALT LAKE CITY, UTAH

§401 Water Quality Certification No. DWQ-2019-01002

Pursuant to *§401 of the Federal Clean Water Act(CWA),* the Utah Department of Environmental Quality (DEQ), Division of Water Quality (DWQ) certifies that the applicant has provided reasonable assurance that any discharges associated with the proposed project will not violate surface water quality standards, or cause additional degradation in surface water not presently meeting water quality standards. In accordance with Section 401(a)(1) of the CWA [33 U.S.C. Sec. 1341(a)(1)], DWQ herby issues this §401 Water Quality Certification provided any listed conditions are met and included in the corresponding U.S. Army Corps of Engineers (USACE) 404 Permit.

Applicant: Utah Department of Transportation (UDOT)
Mr. Dave Adamson
116 West Southwell Street
Ogden, UT 84404

Project: The applicant is proposing to expand SR-30 between SR-23 and 1000 West in Logan City to address concerns with (1) decreased mobility due to increased traffic congestion during peak travel periods, (2) lack of roadway elements (shoulders, turn lanes, and curves) that meet current federal and state design standards for safety, (3) inability to adequately accommodate the high volume of freight trucks, (4) above-average accident rates and high frequency rollover accidents. The proposed project consists of a combination of four-, three-, and two-travel-lane segments. The project would include a separate bike path and reconstruction of a drainage ditch along the alignment.

Location: Along the existing alignment of SR-30 from 100 West in Logan City to SR-23: western end Latitude 41.75075°, Longitude -111.97942°; eastern end 41.73567, -111.85981, Cache County, Utah.

Watercourse(s): Cow Pasture Canal, Cutler Marsh/Reservoir, and palustrine emergent and palustrine scrub-shrub wetlands adjacent to SR-30.

Effective Date: **June X, 2019**

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Erica Brown Gaddis, PhD
Director, Division Water Quality

DWQ-2019-005337

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I. Background

A. Other Applicable Permits

1. USACE 404 Permit No.: SPK-2016-00777

B. Project Description/Purpose

The applicant is proposing to expand SR-30 between SR-23 and 1000 West in Logan City to address concerns with (1) decreased mobility due to increased traffic congestion during peak travel periods, (2) lack of roadway elements (shoulders, turn lanes, and curves) that meet current federal and state design standards for safety, (3) inability to adequately accommodate the high volume of freight trucks, (4) above-average accident rates and high frequency rollover accidents. The proposed project consists of a combination of four-, three-, and two-travel-lane segments. The project would include a separate bike path and reconstruction of a drainage ditch along the alignment.

The segment from 1900 West to SR-23 would consist of the following: (a) A center 14-foot median for the entire length; (b) Three 12-foot travel lanes (two westbound lanes, one eastbound lane) from 1900 West to just west of 3200 West; (c) Four 12-foot travel lanes from milepost 103.3 to SR-23 and the realignment of the Wellsville-Mendon Canal near milepost 103.3;(d) Two 12-foot travel lanes from just west of 3200 West to milepost 103.3;(e) Reconstruct an unnamed drainage to Cutler Reservoir that passes under SR-30;(f) Reconstruct the PacifiCorp Lower Logan River Access recreation access site; and (g) Improvements to the SR-30 and SR-23 intersection.

The segment from the SR-30-1000 West intersection to 1900 West would consist of the following: (a) Four 12-foot travel lanes with a 14 foot wide center turn median; 12-foot wide shoulders; and curb, gutter, and sidewalk; and (b) Improvements to the SR-30 and 1000 West intersection including single left and right turn lanes onto 1000 West.

C. Site Description

The 745 acre project area contains approximately 180 acres of palustrine emergent wetland, 5.8 acres of palustrine scrub-shrub wetland, 6.5 acres of wetland ditch (palustrine emergent), 6.4 acres of non-wetland irrigation ditch, and 72.5 acres of non-wetland open water. This project corridor consists mainly of agricultural lands used for grazing and cultivating hay and food crops. Vegetation communities observed in the project corridor include weedy uplands, scrub-shrub wetlands, emergent wetlands, monoculture agricultural grass areas, and a few small areas of mature trees. Soils within the project corridor range from loam, to silt loam, to silty clay loam, to silty clay. Several surface waters—including the Logan River, Little Bear River, and numerous irrigation ditches and canals—cross through the project corridor. The area known as Cutler Marsh, where SR-30 crosses the Logan River and Little Bear River, is inundated by water from Cutler Reservoir

D. Proposed Alterations/Impacts

Approximately 12.24 acres of palustrine emergent wetlands, 0.01 acre of palustrine scrub-shrub wetlands, 0.62 acre (3,689.6 linear feet) of irrigation ditch, and 5.68 acres of open water would be unavoidably filled by road base for the SR-30 highway improvements and separate pedestrian and bike lane, drainage improvements and realignments, and extended pipe culverts. A total of approximately 18.52 acres of wetlands and other waters of the US would be unavoidably filled by project construction. This would result in the discharge of approximately 55,900 cubic yards of fill material into wetlands and 29,800 cubic yards of fill material into non-wetland waters. Because the final design is still being developed, proposed impacts within the project impact limit are all considered permanent. UDOT does not propose any temporary impacts to occur because all proposed permanent impacts will occur within the project impact limit. It is anticipated that there would not be an increase in permanent impacts following the development of the final design.

E. Mitigation

The applicant is evaluating two potential mitigation sites known as the Kunzler and the Harris properties. The Kunzler property is comprised of three parcels, totaling 33.24 acres, situated on the north side of the Logan River between 1000 West and 600 West in Logan, Utah. The Harris property is comprised of two parcels, totaling 87.84 acres, on the east side of the Cub River and north of State Route 142 (SR-142) in Richmond, Utah. A conceptual mitigation plan has been prepared for the Kunzler property, since it is the preferred mitigation site.

The applicant is proposing a combination of restoration and enhancement at the Kunzler property. This would be accomplished through modifying the surface hydrology by installing drainage plugs and control structures to spread water into excavated areas and existing wetland areas. Several existing upland areas would be excavated to intercept the near-surface, high water table and would be restored to wetlands. Existing wetlands would be enhanced through a combination of surface hydrology improvements and connections, and conversion of nonnative vegetation to native vegetation. Invasive crack willow would be removed from areas of open water and from along the north bank of the Logan River. The applicant believes this would result in a net gain of overall wetland functions compared to the project wetland impacts.

II. Certification Conditions

A. Project Specific Conditions

1. Bridges, Culverts, and Fill

   a. Wetlands outside of the permitted impact area shall be clearly marked to prevent unintentional/additional impacts to water features.

   b. Construction of bridges/culverts shall be conducted in the "dry" to the maximum extent practicable, by diverting flow utilizing cofferdams, berms constructed of sandbags, clean rock (containing no fine sediment) or other non-erodible, non-toxic material. All diversion materials shall be removed at the completion of the work.

   c. The bottom of culverts shall be installed below streambed elevation in a manner that allows for natural substrate to reestablish. All culverts with more than one barrel shall have base flow concentrated into one barrel.

   d. The culverts should not result in a disruption or cause a barrier to the movement of fish or other aquatic life on the downstream side.

2. Stormwater and BMPs

   a. In the "urban segment", UDOT will implement inline water quality treatment units, hydrodynamic separators, detention basins, or other feasible BMPs as determined by UDOT's *Stormwater Quality Design Manual.* Selected BMPs should meet the minimum design criteria outlined in the manual.

   b. In the "rural segment", UDOT will utilize vegetative filter strips or other feasible BMPs as determined by UDOT's *Stormwater Quality Design Manual* to treat stormwater. Selected BMPs should meet the minimum design criteria outlined in the manual.

   c. During Construction, where work is being completed in areas of open water, such as Cutler Marsh, BMPs should be implemented to prevent additional discharges and limit increases in turbidly. Where diversion is not practical, UDOT should consider utilizing a turbidity curtain or other means to prevent impacts to water quality.

3. Mitigation

   a. Temporarily impacted riparian areas shall be revegetated with native riparian plant mixes

   b. When a final Mitigation plan is accepted, UDOT shall submit a copy to DWQ. Additionally, an monitoring associated with the mitigation required by the USACE, shall be dent to the DWQ.

B. General Conditions

1. Good Housekeeping

   a. Applicant and their subcontractors shall ensure that all workers involved are continuously aware of the water quality protection measures before the start and during the construction period.

   b. Retain a copy of this §401 Certification and its affiliated USACE 404 Permit onsite.

2. Stormwater and BMPs

   a. Water quality standards in associated water resources could be violated unless appropriate Best Management Practices (BMPs) are incorporated to minimize the erosion-sediment and nutrient load to any adjacent waters during project construction. The applicant shall not use any fill material which may leach organic chemicals (e.g. discarded asphalt), noxious weeds/seeds or nutrients (e.g., phosphate rock) into waters of the State.

   b. Construction activities that disturb one acre or more, or are part of a common plan of development, are required to obtain coverage under the Utah Pollutant Discharge Elimination System (UPDES) Stormwater General Permit for Construction Activities, Permit No. UTR300000[1]. The permit requires the development of a Storm Water Pollution Prevention Plan (SWPPP) to be implemented and updated from the commencement of any soil disturbing activities at the site, until final stabilization of the project. The SWPPP should include, but not limited to, final site maps and legible plans, location of stormwater outfalls/discharges, as well as information pertaining to any stormwater retention requirements.

   c. Dewatering activities, if necessary during construction, may require coverage under the UPDES General Permit for Construction Dewatering, Permit No. UTG070000[2]. The permit requires water quality monitoring every two weeks to ensure that the pumped water is meeting permit effluent limitations, unless water is contained onsite.

   d. A project within a Municipal Separate Storm Sewer System (MS4) jurisdiction, must comply with all the conditions required in that UPDES MS4 Permit and associated ordinances. No condition of this 401 Certification shall reduce or minimize any requirements provided in the MS4 Permit. In the case of conflicting requirements, the most stringent criteria shall apply.

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[1] Link: https://documents.deq.utah.gov/water-quality/permits/updes/DWQ-2017-003485.pdf
[2] Link: https://deq.utah.gov/legacy/permits/water-quality/utah-pollutant-discharge-elimination-system/docs/utg070000.pdf

e. Utah Administrative Code R317-2 requires that the Applicant cannot increase water turbidity by 10 NTUs. If violated shall immediately notify the DWQ. A fact sheet describing the Utah Department of Environmental Quality's (DEQ) recommended environmental BMPs for construction sites are located on our web site [3].

3. Spills

a. Refueling equipment and storage of lubricants and fuels will occur at designated staging areas and in state approved containers. The storage and refueling areas will be at least 500 feet from the edge of the nearest waterbody (including wetlands), at least 200 feet from the nearest private water supply well, and at least 100 feet from the nearest municipal water supply well.

b. Utah Annotated Code 19-5-114 requires that any spill or discharge of oil or other substances which may cause pollution to waters of the State, including wetlands, must be immediately reported to the Utah DEQ Spill Hotline at (801) 536-4123, a 24-hour phone number.

[3]Link: https://deq.utah.gov/legacy/businesses/business-assistance/construction/index.htm

III. Aquatic Resource Impacts

All Waters of the State of Utah (defined in Administrative Code (UAC) R317-1-1) are protected from pollutant discharges that affect water quality by narrative standards (see UAC R317-2-7.2); broadly, discharges should not become offensive or cause undesirable conditions in human health effects of aquatic life. In addition, some particularly sensitive classes of water are further protected from deleterious effects of specific pollutants by application of numeric criteria to designated (beneficial) uses of that water body. Listed below are the water features within the project area and their associated designated beneficial uses (see UAC R317-2-6):

A. Impacts to Linear Water Features

1. Impacts to Cow Pasture Canal

a. Class 2B: Protected for infrequent primary contact recreation. Also protected for secondary contact recreation where there is a low likelihood of ingestion of water or a low degree of bodily contact with the water. Examples include, but are not limited to, wading, hunting, and fishing.

b. Class 3E: Severely habitat-limited waters. Narrative standards will be applied to protect these waters for aquatic wildlife.

c. Class 4: Protected for agricultural uses including irrigation of crops and stock watering.

B. Impacts to Wetlands and Reservoirs

1. Impacts to Cutler Marsh/ Cutler Reservoir

a. Class 2B: As previously described.

b. Class 3B: Protected for warm water species of game fish and other warm water aquatic life, including the necessary aquatic organisms in their food chain.

c. Class 3D: Protected for waterfowl, shore birds and other water-oriented wildlife not included in Classes 3A, 3B, or 3C, including the necessary aquatic organisms in their food chain.

d. Class 4: As previously described.

C. Indirect Impacts

1. Lower Logan River

a. Class 2B: As previously described.

b. 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.

c. Class 3D: As previously described.

d. Class 4: As previously described.

2. Wellsville Mendon Canal

a. Class 2B: As previously described.

b. Class 3E: As previously described.

c. Class 4: As previously described.

D. Impairments

Results from the current water quality assessment, as documented in Utah's 2016 Integrated Report [[4]], indicate that Cutler Reservoir is considered to be impaired (Assessment Category 5). These impairments include degraded warm water fish and waterfowl-base aquatic life uses (Classes 3B and 3D), due to low dissolved oxygen and excess total phosphorus.

[4]Link: https://documents.deq.utah.gov/water-quality/monitoring-reporting/integrated-report/DWQ-2017-004941.pdf

IV. Modifications

A. Without limiting DWQ's discretion to take other actions in accordance with UAC R317-15, and, as applicable, 33 USC 1341, DWQ may modify the Certification to add, delete, or modify the conditions in this Certification as necessary and feasible to address:

1. Adverse or potential adverse project effects on water quality of designated beneficial uses that did not exist or were not reasonably apparent when this certification was issued;

2. TMDLs;

3. Changes in Water quality standards;

4. Any failure of Certification conditions to protect water quality or designated uses when the Certification was issued; or

5. Any change in the Project or its operations that will adversely affect water quality of designated beneficial uses when this Certification was issued.

V. Other Information

A. Fees

1. The legislatively-mandated fee for the 2019 fiscal year is $100.00/hour, for review and issuance of the §401 Water Quality Certification [5]. A quarterly invoice will be sent once plans have been approved. Your payment is due within 30 days.

B. Liabilities

1. Applicant must acquire all necessary easements, access authorizations and permits to ensure they are able to implement the project. This §401 Certification does not convey any property rights or exclusive privileges, nor does it authorize access or injury to private property.

2. This §401 Certification does not preclude the applicant's responsibility of complying with all applicable Federal, State or local laws, regulations or ordinances, including water quality standards. Permit coverage does not release the applicant from any liability or penalty, should violations to the permit terms and conditions or Federal or State Laws occur.

[5]Link: https://documents.deq.utah.gov/admin/2019-fee-schedule.pdf

VI. Public Notice and Comments

A. Public Notice Dates

1. USACE Permit No. SPK- 2016-00777 : 04/24/2019 – 05/24/2019

2. Utah DEQ Certification No. DWQ-2019-01002 :

B. Public Notice Comments/Response

Appendix A: Project Location

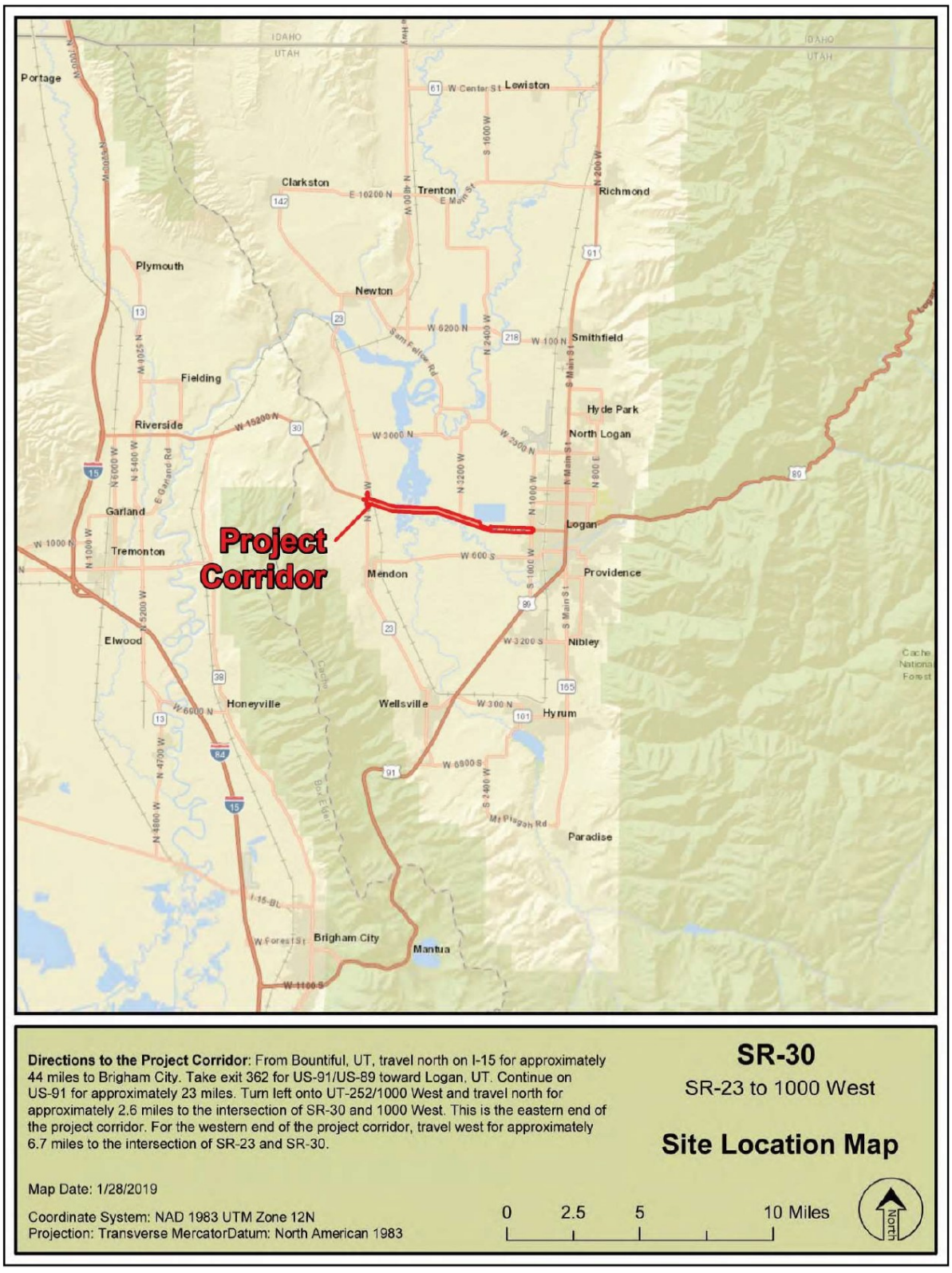

Figure 1. Proposed project location map.

Appendix B: Conceptual Mitigation Design

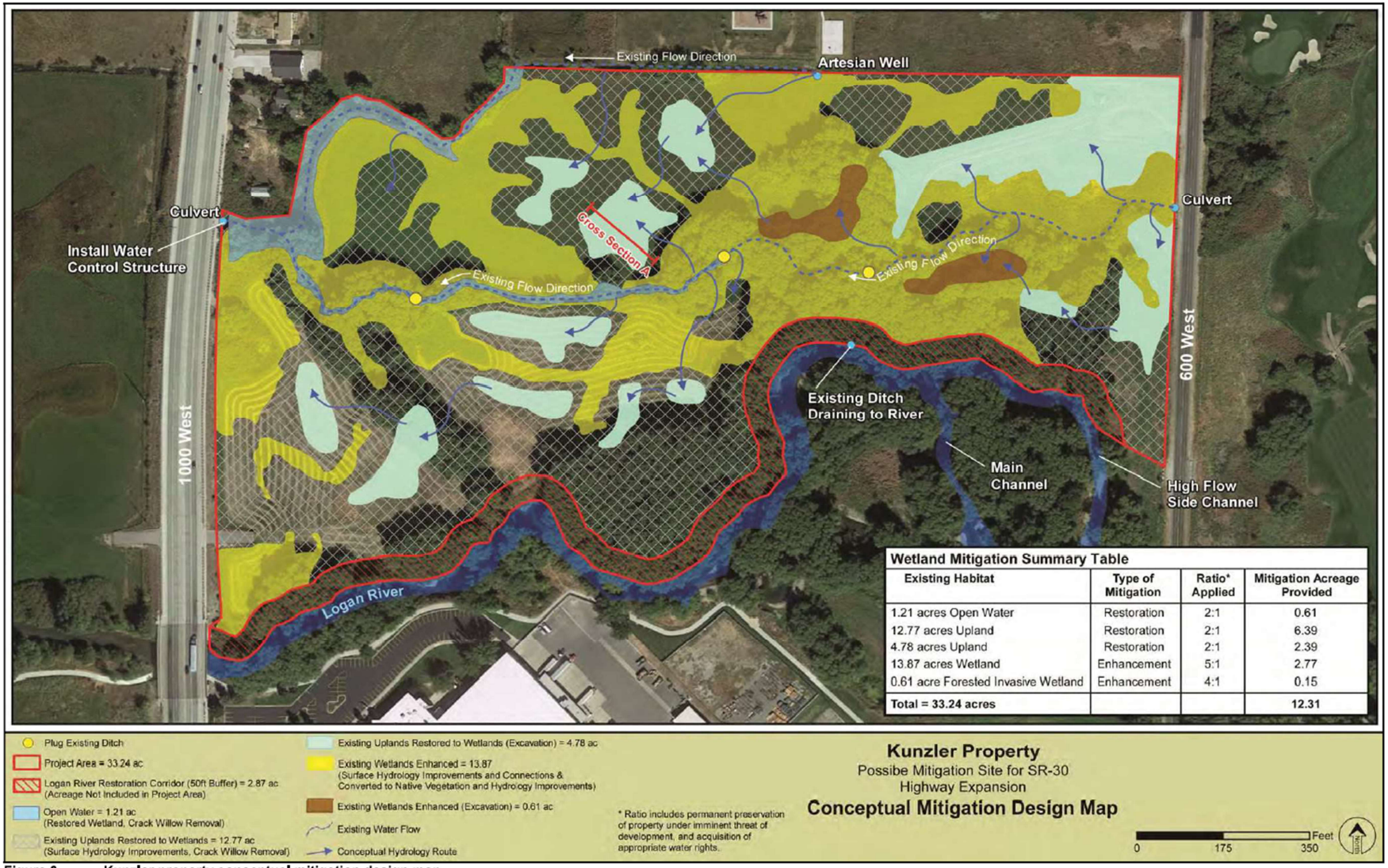

Figure 3. Kunzler property conceptual mitigation design map.