

UTAH DIVISION OF WATER QUALITY

Granite Construction 1000 North Warm Springs Rd. Salt Lake City, UT 84116	DOCKET NUMBER I16-04 STIPULATED COMPLIANCE ORDER
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A. PURPOSE

1. This **STIPULATED COMPLIANCE ORDER ("SCO")** is entered into voluntarily by and between the Director of the Utah Division of Water Quality ("**DIRECTOR**"), and Granite Construction (**GRANITE**). The **DIRECTOR**, and **GRANITE** are jointly referred to hereafter as the "**PARTIES**." The purpose of this Agreement is to resolve all issues (consistent with the Utah Water Quality Act, Title 19 Chapter 5 of the Utah Code (**ACT**) and other applicable law) related to the discharges from June 4, 2016 to June 9, 2016 from US-40 Hydro-demolition project to waters of the state.

B. AUTHORITY

- 1) The **DIRECTOR** of the **UTAH DIVISION OF WATER QUALITY ("DIVISION")** is authorized to issue, continue in effect, renew, revoke, modify or deny discharge permits and to issue orders in accordance with Utah Code Ann. (UCA) § 19-5-106, and to specify a schedule of compliance in a permit leading to compliance with the **ACT** pursuant to Utah Admin. Code (UAC) R317-8-5.2.
- 2) The **DIVISION** was created to administer the **ACT** under the immediate direction and control of the **DIRECTOR** pursuant to UCA § 19-1-105.
- 3) The U.S. Environmental Protection Agency (EPA) has delegated authority to the State of Utah to administer the National Pollutant Discharge Elimination System (NPDES) permit program under the Federal Clean Water Act (CWA), known in Utah as UPDES.
- 4) It is unlawful for any person to discharge a pollutant into waters of the state, unless the discharge is authorized by permit, Utah Code Ann. § 19-5-107(1)(a). See also Utah Admin. Code R317-1-2.1. Waters of the State means "all streams, lakes, ponds, marshes, watercourses, waterways, wells, springs, irrigation systems, drainage systems, and all other bodies or accumulations of water, surface and underground, natural or artificial, public or private, which are contained within, flow through, or border upon this state or any portion of the state" Utah Code Ann. § 19-5-102(23)(a).
- 5) It is unlawful to cause pollution which constitutes a menace to public health and welfare, or is harmful to wildlife, fish or aquatic life, or impairs domestic, agricultural, industrial,

recreational, or other beneficial uses of water, or to place or cause to be placed any wastes in a location where there is probable cause to believe it will cause pollution. Utah Code Ann. § 19-5-1107(1)(a).

- 6) Utah Admin. Code R317-2-7.2 prohibits any person from discharging or placing any waste or other substance in such a way that waters of the state will be or may: "become offensive such as unnatural deposits, floating debris, oil, scum or other nuisances such as color, odor or taste; or cause conditions which produce undesirable aquatic life or which produce objectionable tastes in edible aquatic organisms; or result in concentrations or combinations of substances which produce undesirable physiological responses in desirable resident fish, or other desirable aquatic life, or undesirable human health effects, as determined by bioassay or other tests performed in accordance with standard procedures."
- 7) Utah Code Ann. § 19-5-1 07(3)(a) states "It is unlawful for any person, without first securing a permit from the Director, to: make any discharge... not authorized under an existing valid discharge permit".
- 8) Utah Admin. Code R317-2-7.1 prohibits any person from discharging, or placing any wastes or other substances, in a manner that may interfere with waters' designated uses, or to cause any of the applicable standards to be violated.
- 9) On May 11, 2016, **GRANITE** was issued a Ground Water Discharge Permit-By-Rule Determination for the US Highway 40 Hydro-Demolition and Bridge Refurbishment Project (Permit by Rule). The permit allowed for percolation and infiltration into the subsurface in three temporary ponds. The Permit by Rule set pH standards at 6.5-8.5 and a total dissolved solids standard of no greater than 850 mg/L (Specific Conductance approximately 1,200 µS/cm). In addition, the Permit by Rule required "A daily grab sample will be collected and analyzed to confirm that the released water is within the pH and TDS limits." Last, the Permit by Rule required "Water from the tanks will occur at a rate not to exceed the infiltration rates of the temporary basins as *no direct discharge to surface water or storm drainage is permitted.*"
- 10) On May 28, 2016, **GRANITE** obtained coverage No. UTG070839 under the Construction Dewater/Hydrostatic Testing UPDES General Permit for dewatering activities during the project. As stated in Part I.A.1. this general permit applies "to construction dewatering of uncontaminated groundwater or surface water sources used in construction activities, hydrostatic testing of pipelines or other fluids vessels, water used in disinfection of drinking water vessels (provided the disinfectant is no longer viable), and other similar discharges in the State of Utah that have no discharge of process wastewater other than those described in this paragraph." DWQ is unaware of any groundwater encountered as part of the US Hwy 40 Project so this coverage will be disregarded.
- 11) On June 30, 2016, **GRANITE** submitted the *US-40 Hydro-Demolition Discharge Report* to DWQ. On September 28, 2016 **GRANITE** submitted the *US-40 Hydro-Demolition Discharge 90 Day Report* (US-40 Report) to DWQ.

- 12) Silver Creek has the following beneficial uses: Class 1C = Domestic/Drinking Water; Class 2B = Infrequent primary contact recreation (e.g. wading, fishing); Class 3A = Cold water fishery/aquatic life; Class 4 = Agricultural uses (crop irrigation and stock watering). In addition, Silver Creek has a TDS standard of 1,200 mg/L. Last, Silver Creek is on the 303d list of impaired waters for: Arsenic, Dissolved Oxygen, Nitrate, OE Bioassessment, pH, Total Dissolved Solids (TDS), Cadmium, and Zinc.

C. FINDINGS

- 1) **GRANITE** conducted the US-40 bridge rehabilitation project (US Hwy 40 Project) in Summit County, Utah during summer of 2016. The project included the hydro-demolition of the bridge decks. The hydro-demolition technology includes using high pressure water to scour and remove eroded or weakened concrete from the bridge deck.
- 2) Hydro-demolition activities on the US Hwy 40 Project began the night of Friday June 3, 2016 and continued until June 10, 2016. "By mid-day of June 4, 2016, all three ponds were full to capacity. Since construction was ongoing, the water was then pumped from the ponds into the median storm drain located between the Kearns Blvd and Rail Trail bridges."¹ These storm drains led to Silver Creek.
- 3) "Granite monitored the pH and collected four TDS samples from the treatment system discharge fulfilling a portion of the permit requirements. Granite failed to monitor for SC in the discharge ponds"¹ Measured concentrations of the four TDS samples collected were 1,420 mg/L, 4,200 mg/L, 1,840 mg/L, and 2,170 mg/L on June 7, 8, 9, and 9, respectively.
- 4) **GRANITE** included copies of the "Hourly Log – US-40 Bridge Hydro Demolition" field sheet in their US-40 Report. This sheet was to be used to record pH and specific conductivity readings from June 3, to June 10, 2016. No specific conductivity readings were recorded. 13 of 89 recorded pH measurements were greater than the Permit by Rule discharge parameters.
- 5) "Granite used 588,000 gallons of water (according to the water meter readings) during the hydro-demo. It was estimated that only 20,000 gallons seeped into groundwater through the ponds and the remaining 568,000 gallons was discharged into the median storm drain...The water was continuously discharged into the storm drain over approximately 6 days".¹
- 6) On June 23, 2016, **GRANITE** notified DWQ of the discharge of hydro-demolition process water from their temporary ponds to Silver Creek.
- 7) At the request of DWQ staff **GRANITE** observed Silver Creek for any signs of environmental impacts of their discharge. On June 23, 2016, Granite conducted this investigation and observed no indications of long term environmental impacts. However,

¹ US-40 Hydro-Demolition Discharge Report. June 30, 2016 Granite Construction

impacts from June 4 to June 9, 2016 likely would have been washed away by this time due to rain events between June 4 and June 23, 2016 as well as the flow of Silver Creek.

- 8) July 9 to July 15, 2016 **GRANITE** conducted the second phase of hydro-demolition. "Since the TDS was above the discharge limit for the Silver Creek WTP disposal, the water generated from the hydro-demo process was either used for post cure water for the new concrete paved over the refurbished bridges or was trucked to a water disposal located in Evanston Wyoming. The project generated a total of 645,062 gallons and used 63,000 gallons for the concrete post cure."¹
- 9) "Additional samples were collected and analyzed during round two of the hydro-demolition. The analysis included TDS, TSS, Chemical Oxygen Demand (COD), Biological Oxygen Demand (BOD), and Total and Dissolved Metals (limited to Arsenic, Cadmium, Chromium, Copper, Lead, Selenium, and Zinc). A total of five samples were collected from treated water tanks."¹ The average measure concentration of TDS was 2,548 mg/L. "The BOD and COD concentration's, average of 646 mg/L and 747 mg/L, respectively, were much higher than expected. It is unknown the source of the BOD in the treated water. Untreated water was not sampled so it is unclear if the BOD is due to the concrete material and hydro-demolition water or the materials used to treat the water such as coagulant (removal of TSS) and citric acid (adjustment of pH in batch tanks)."¹ "The total and dissolved metals concentrations were below the method detection limits for the majority of the analytes...All observed analyte concentrations were below EPA drinking water Maximum Concentration Limits (MCLs) or Secondary Standards."¹
- 10) **GRANITE** failed to monitor 3 days of discharge to the ponds as required by the Permit by Rule for TDS on June 5, 6, and 10, 2016. Additionally, **GRANITE** failed to monitor 8 days of discharge to the ponds as required by the Permit by Rule for specific conductivity on June 3 to 10, 2016.
- 11) **GRANITE's** discharge to Silver Creek was in direct violation of the Permit by Rule and no valid UPDES permit exists for surface water discharge of hydro-demolition process water. This constitutes 6 days of unpermitted discharge from June 4 to 9, 2016.
- 12) Based on the TDS monitoring **GRANITE** was in exceedence of the Permit by Rule discharge perimeters at a minimum on June 7, 8, and 9, 2016. In addition, these monitoring results are in violation of the receiving water quality standards for Silver Creek.
- 13) Based on the characterization sampling conducted during the second phase the discharge of process water during June likely had an average BOD concentration of 646 mg/L in exceedence of the standards set forth in R317-3.2.a.
- 14) The DWQ finds the discharge of 568,000 gallons of process water containing approximately 646 mg/L of BOD is a significantly greater concentration than the 35 mg/L of BOD required by R317-1-3.2.a. BOD at that level has the potential to have

serious impacts on receiving water causing a hazardous dissolved oxygen sag in the receiving water.

D. AGREEMENT

The **DIRECTOR** hereby orders, and **GRANITE** agrees to, the following Compliance Order to fully resolve the matter and any requirement related to the same under all applicable laws and regulations:

- 1) **GRANITE** agrees to pay a penalty in the amount of \$100.00 within thirty (30) days of the effective date of this **SCO** by check made payable to the State of Utah delivered or mailed to:


Department of Environmental Quality
Division of Water Quality
P. O. Box 144870
Salt Lake City, Utah 84114-4870

- 2) **GRANITE** further agrees to fund a mitigation project, in the amount of \$19,400. The mitigation project funds must be utilized by no later than one year from the effective date of this **SCO**.
- 3) **GRANITE** must submit within ninety (90) days of the effective date of this **SCO** for **DIRECTOR** approval, a project implementation plan for each project that includes a detailed description of the mitigation project, a cost breakdown showing how the funds will be used, and a plan for implementation of the project, which shall include a time frame for implementation and completion of the project and submission of final document(s) indicating completion of the project. The implementation plan should also include a funding schedule which specifies who receives the mitigation funds and when.
- 4) **GRANITE'S** participation in the mitigation project(s) must fully adhere to UAC R317-1-8.4. **GRANITE** agrees not to attempt to gain or generate any positive publicity, and further agrees not to deduct or otherwise attempt to obtain a tax benefit from the foregoing funding of the mitigation projects.
- 5) If **GRANITE** fails to fund the mitigation project(s) or fails to submit the outline(s) as described in Paragraph D.3. above, or if the mitigation project(s) will not utilize the full funds allotted, **GRANITE** shall remit the remaining unspent funds as per the method and address in Paragraph D.1. within thirty (30) days of demand to do so by the **DIRECTOR**.

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- 6) **GRANITE** must submit all documentation to the **DIRECTOR** including receipts, once the funds have been spent for the approved mitigation project(s). This information must include who was paid, what the payment was for, and the dates of when the payment was made.
 - 7) **GRANITE** may be required to submit updates, based on the approved project(s). Updates must be submitted every 3 months. The updates must include how the project is progressing and any known setbacks that may impact the money being spent within a year.
 - 8) Nothing in this **SCO** shall constitute a waiver by **GRANITE** of any claims it may have against third parties for costs, damages or other relief associated with the release described above. Further, nothing in this **SCO** shall prohibit or limit in any way **GRANITE's** ability to seek contribution or cost recovery from third parties under Comprehensive Environmental Response, Compensation and Liability Act, Resource Conservation and Recovery Act, Clean Water Act, or other laws or regulations. **GRANITE** reserves all rights to any remedy not expressly prohibited by this **SCO**.
 - 9) **GRANITE** shall supply to the **DIRECTOR** all requested information consistent with requirements of this **SCO**, the **ACT**, associated rules and permit requirements.
 - 10) **GRANITE** shall perform the requirements of this **SCO** within the time frames set forth herein.
 - 11) By executing this **SCO**, **GRANITE** makes no admissions concerning the findings and denies liability for the findings made within. The **PARTIES** understand and agree that this **SCO** is being entered into in an effort to resolve a dispute between the **PARTIES** and avoid any further dispute, discussion or action concerning the matters related thereto.
 - 12) Disputes arising hereunder are subject to Utah Code Ann. §§ 19-5-112, 19-1-301 and 19-1-301.5, Rule 305-7 of the Utah Admin. Code, and other applicable law.
 - 13) The undersigned representatives certify that they are fully authorized to enter into the terms and conditions of this **SCO** and to bind the party they represent to this **SCO**.
 - 14) This **SCO** shall be effective the day upon which it has been executed by the **DIRECTOR**.

IT IS SO AGREED.

Granite Construction


By: Mark Greenwood, Env. Manager
Name, Title

Granite Construction

Date: 3-2-2017

IT IS SO ORDERED.

Walter L. Baker, P.E., Director
Utah Division of Water Quality

Date: _____

DWQ-2016-014200