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Addendum No. 1

FLEISH PENSTOCK REPLACEMENT

PWP Bid No. WA-2016-240

August 25, 2016

The following information, clarifications, changes and modifications are by reference incorporated into the bid documents for the above referenced project. Any work item or contract provision not changed or modified will remain in full force and effect.

THE BID DATE HAS BEEN EXTENDED TO THURSDAY SEPTEMBER 01, 2016 AT 3:00 PM

The project milestones will be modified accordingly. Note that the Notice to Proceed date has also been adjusted to add five Days to the Contract Time. Bidders are directed to make the appropriate changes in Section 7.01 C of the Supplementary Conditions, and also in Section 3.2 of the Sample Agreement for Construction. The new dates are as follows:

Bids Due	September 01, 2016
Notice of Award Issued	September 02, 2016
Pre-Construction Meeting	September 15, 2016
Notice to Proceed	September 15, 2016
Existing Penstock Must Remain In Service Through	September 30, 2016
Start Construction	October 03, 2016
Work Substantially Complete (138 Days)	January 31, 2017
Final (100%) Completion (152 Days)	February 14, 2017

QUESTIONS AND RESPONSES

Question No. 1: I'm assuming that the entire scope of work will be done on the dry, with no diving or underwater construction activities at all?

Response to Question No. 1: That is correct. No underwater work will be required.

Question No. 2: We are interested in submitting a bid for this project but the short bid period is presenting a challenge. Would you consider extending the Bids Due date 1 week? Thank you for your consideration.

Response to Question No. 2: The Bid Date has been extended. See the adjusted Project Milestones on Page 1, above.

Question No. 3: In the bid packet, Page 8, it calls for references. The supplemental conditions are indicated to define the TMWA Category. We do not see the Category listed in the supplemental conditions. What is the TMWA category for references?

Response to Question No. 3: There are several paragraphs addressing project categories in Section L. 9. of the Instructions to Bidders. This project is categorized as a "Steel Penstock". Prior experience on similar projects of equal or greater size, scope, type, cost, and complexity will be accepted.

Question No. 4: When will the Steamboat Ditch be shut down and for how long?

Response to Question No. 4: The Steamboat Ditch will be offline from September 10, 2016 through March of 2017.

Question No. 5: General Conditions section 4.06 indicates that there will be no additional payment or payment under "rock excavation" for any rock excavation in the area approximately 200 lf from the centerline of the Truckee River. What station of the penstock does this 200lf extend to?

Response to Question No. 5: Due to the unique location and nature of this Project, extra payment for "Rock Excavation" as defined in Section 4.06 of the General Conditions will apply to the whole Project, regardless of the distance from the Truckee River.

Question No. 6: Will the owner allow extra time to the contract for procurement of the Penstock pipe? The current contract schedule for the project does provide enough time to allow for procurement of the pipe, factory coating, installation, and winter touch up painting. We understand the addendum one will move up the start date which is good, as there is a lot of prep work to do and gaining access to the site earlier will benefit the project; however, there doesn't appear to be any way to improve on the procurement schedule of the penstock pipe.

Response to Question No. 6: The completion date is critical for this project due to the start of electrical generation season. The Notice to Proceed will be issued as soon as possible after recommendation to award to maximize available time this fall. The procurement of pipe, and coordination of all construction activities must fall within the current number of contract days. It will be up to the successful Contractor to schedule accordingly.

Question No. 7: At the Penstock Powerhouse there are two rooms (bathroom and electrical room) that pop out on the east side of the building. The new proposed penstock is to be installed between the two rooms. Con you provide information on the foundation for the two rooms and building? Are the two rooms additions to the original structure and do the rooms have a foundation or are the two rooms slab on grade?

Response to Question No. 7: TMWA does not have drawings for these two rooms. It is believed they were added some time after the original building was constructed. It will be up to the successful Contractor to determine the type of existing foundation, and how to shore the excavations.

Question No. 8: At the pre-Bid, it was discussed that the overhead power line that runs from the Forebay to the Penstock Powerhouse will be removed by TMWA or other at the time the Fleish Penstock facility

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is shut down. Please confirm that the overhead power form the Forebay to the Penstock Powerhouse will be removed and all other electrical work will be done by TMWA or others with the exception of the 3-3" conduits and construction power.

Response to Question No. 8: Yes. See Clarification Item 9. Below.

Question No. 9: I am sending this email to request that EF1988 manufactured by Global EcoTechnologies be added as an alternate to the one listed in your specifications. EF1988 has a long history in penstock lining and coating. Our system is elastomeric with tensile strength of 2,800-3,000 psi and elongation of 40-60%. As such our system has better impact and abrasion resistance than the one listed which is a thinner film and with rigid properties. We are also recommending that you consider a 50-60 mil application for better film strength and thus longer service life in service that is likely to have solids running through the penstock.

Response to Question No. 9:

The information provided appears incomplete. Specifically, the following is noted;

1. There was no information provided on Global Eco Technologies. Specification Section 2.1.A requires that the products be "…produced by recognized manufacturers who are regularly engaged in production of such materials…". It should be noted that Shaw Engineering has no previous knowledge or experience with this manufacturer or product.
2. There were no 5 year case histories on similar large diameter steel penstock projects provided (required per Article 2.1).
3. There was no independent coating Performance Testing or Report submitted (required per Article 2.2.D).
4. Manufacturer provided abrasion resistance test data of 53 mg does not comply with the specification (required per Article 2.2.D.). This was not identified as a deviation.
5. Manufacturer provided impact resistance test data results are for 65 mils, not 40 mils (required per Article 2.2.D). This was not identified as a deviation.
6. No values were provided for Permeance or Electrochemical Impedance (required per Article 2.2.D).
7. Information submitted states that product is "suitable" in accordance with NSF Standard 61. Has the product been "certified" by NSF61?
8. There was no information supplied in regards to interior field joint coatings or their compatibility with the lining (required per Articles 1.3.5 and 2.3).
9. There was no information supplied in regards to exterior field joint coatings (required per Articles 1.3.5 and 2.4).
10. There was no information supplied for the Repair of Coatings and Linings (required per Article 2.5).
11. There was no information supplied in regards to the exposed top coat required through the above grade section (required per Article 2.6).

A statement should be submitted that the product either completely complies with the specification, or specifically state where it does not comply.

A recommendation was made of 50-60 mils. Is this for the coating, the lining or both? Specific recommendations from the manufacturer for lining and coating thicknesses and surface preparation specific for this application must be provided.

The fine print disclaimer at the bottom of the Product Data Sheet is not acceptable.

This product was reviewed as an "or equal" not a substitution. Substitutions were specifically not allowed and furthermore substitutions must be made by the bidding contractor who must comply with General Condition Article 6.10. This submittal would not have complied with Article 6.10.

Question No. 10: For TMWA's Fleish Penstock project: on the 96" steel penstock pipe, may the contractor use the rolled & welded method to manufacture the pipe per AWWA?

Response to Question No. 10: Yes. See modified Technical Specifications below:

Technical Specification 02523 Steel Penstock

Delete paragraph 1.4.E Pipe Manufacturer/Fabricator in its entirety and replace with the following paragraph 1.4.E Pipe Manufacturer/Fabricator

E. Pipe Manufacturer/Fabricator

1. Shall have a minimum of 5 years' experience in fabricating AWWA C200 pipe of similar diameters and wall thicknesses required for this Work. This applies to the fabrication plant facility and responsible personnel, not the firm which owns the facility or employs the personnel.
2. Shall have the manufacturing capability and capacity to meet the schedule requirements of this Project.
3. Shall have Steel Pipe Fabricators Association (SFPA) and ISO 9001:2008 certifications or similar.

Delete paragraph 2.1.A.1.c in its entirety and replace with the following paragraph 2.1.A.1.c.

c. Plate steel shall conform to the following;

96 inch Pipe	ASTM A572 Grade 42
60 inch Pipe	ASTM A572 Grade 50
Fabricated Items	ASTM A572 Grade 50

Delete paragraph 2.2.A in its entirety and replace with the following paragraph 2.2.A

A. Pipe shall be spirally formed and welded or rolled and welded.

Delete paragraph 2.1.B in its entirety and replace with paragraph 2.1.B.

B. Manufacturers/Fabricators

1. Northwest Pipe
2. Ameron Water Transmission Group

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3. Jiffco, Livermore CA
4. Utility Coatings & Fabrication, West Jordan UT
5. Western Waterworks Supply, Namphia ID
6. Mid America Pipe, Scammon KS
7. Or Approved Or Equal

Question No. 11: Can the Steamboat ditch boat be either cast in place or precast?

Response to Question No. 11: yes, but it needs to be designed by a registered civil or structural engineer licensed in the State of Nevada and paid for by the Contractor. The design will be subject to approval as a submittal prior to construction.

Question No. 12: On Drawing C2 it shows what appears to be a radial gate in the forebay. Will the Contractor be able to have this open for alternate access and/or will it be leaking water at all?

Response to Question No. 12: This gate can be opened for access into the penstock from above. No water will be present in the forebay during construction.

CLARIFICATIONS

1. The Work will take place entirely in NV, not CA as incorrectly indicated in the Pre-Bid Meeting Agenda.
2. The Contractor will be required to comply with the June 23, 2014, Stormwater Construction Permit NVR100000, Site ID: CSW-39634 Project Name: Fleish Hydro Access, which is attached to this Addendum as Attachment 1.
3. Section 09905 of the Technical Specifications for Polyurethane Lining and Coating has been slightly revised. Bidders are directed to replace this section of the Technical Specifications in its entirety with the section included as Attachment 2.
4. Section 01310 of the Technical Specifications for Project Management and Coordination has been slightly revised as follows:
   Delete paragraph 1.01.C.2 in its entirety and replace with the following paragraph 1.01.C.2:

   2. Show activities including, but not limited to the following:

      i. Notice to Proceed
      ii. Permits
      iii. Submittals
      iv. Major Materials/Equipment Deliveries
      v. Mobilization
      vi. Preparatory work including any potholing and installation of stormwater BMP's
      vii. Temporary shoring/support systems/protection of existing facilities

viii. Demolition
ix. Linings and coatings
x. Construction of new penstock
xi. Construction of Flow Meter Bay
xii. Connection to existing Turbine
xiii. Connection to existing Forebay
xiv. Construction of Steamboat Ditch Improvements
xv. Construction of Miscellaneous Site Improvements
xvi. Testing and start up
xvii. Substantial Completion date
xviii. Punch list
xix. Final Completion date

5. Based on expected river flows dropping off sooner than expected this fall, the successful Contractor can expect to take the existing penstock out of service on September 30, not October 31 as indicated in the Project Schedule. It is possible that the existing penstock may be taken out of service even sooner depending on actual river flows. Refer to the modified Project Milestones on Page 1 of this addendum for anticipated dates.
6. Lead Scope Of Work - This abatement item is regarding the demolition of the Penstock Pipe with Lead-Based Paint (LBP) on the top portion of the existing penstock pipe (generally the part above ground). Because the paint film on the exterior of this piping is Lead-Based Paint (LCP) the project to remove the piping is regulated under the OSHA lead standard reference above. The LBP on this project is not related to residential or child occupied structures, therefore the EPA's Lead Repair, Renovation and Painting standard does not apply.
   The lead work shall be conducted by a contractor qualified to perform work per OSHA's Lead in Construction Standard (29 CFR 1962.62) in addition to the site specific requirements below:

   - The Contractor conducting the LBP activities should have OSHA Lead in Construction Training for Task 1 or 2 activities, depending on the approach intended for this pipe removal and disposal.
   - Because the work will consist of demolition, there is the potential for exposure at or above the Permissible Exposure Limit (PEL) so a Lead Compliance Plan is mandatory. The following are minimum sections for a OSHA qualified plan:
     a. Location of Project
     b. Description of Project (activity)
     c. Hazard Control (Engineering Controls)
     d. Hazard Control (Work Practices)
     e. Hazard Control (Respiratory Protection)
     f. Hazard Control (Protective Clothing)
     g. Training and Notification

   - The work may be performed by conducting special procedures to limit the spread of the LBP at cut locations or saw locations and by removing all chipping paint and paint containing soils from the site.

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LBP Waste Handling - The Owner shall provide waste characterization of the pipe including conducting TCLP analysis of the piping. It is anticipated the pipe may be allowed to be taken to a construction waste landfill. However, at the option of the contractor, the pipe with LBP may be recycled, provided the contractor specifically obtains documentation that the recycler acknowledges the presence of LBP and takes all responsibility for it.

The site shall be cleaned or all paint and any soil contaminated with paint chips at the conclusion of the project.

Owner Provided Services/Testing - The Owner shall provide project monitoring by a lead consultant whom shall conduct periodic site inspections to insure the project in performed in compliance with the OSHA standard.

7. The electrical switch yard area delineated by the fence on the south side of the powerhouse will be off-limits during construction. Additionally, it is recommended that the successful Contractor contact NV Energy for any work around or close to existing electrical infrastructure.
8. The existing overhead electrical between the powerhouse and the forebay running roughly parallel to the penstock will be removed by others prior to the start of Work on this project.
9. The successful contractor will be permitted to take construction water from the spill pond located on site. The pond will be kept full during the construction period. It will be the Contractor's responsibility to prevent erosion, runoff, and silt transport to the river below, and restore any damage to TMWA's satisfaction prior to completion of the project..
10. The Contractor shall be responsible for providing electrical power for construction at the site.
11. Load limits on the two bridges at the site are 25 Kips per axle. Load limits may be raised to 40 Kips per axle with the use of steel traffic plates.
12. On Sheet C2 of the Improvement Plans, Penstock Major Materials List: Add Note 6 as follows:

    "6. The Contractor, at his discretion, may adjust the straight pipe lengths shown per the pipe manufacturer's recommendations and as approved by the Engineer, providing that the Contractor satisfies himself/herself that they can be delivered to the project site, and suitably handled and installed without damage to the pipe or any applied pipe linings and/or coatings."

13. Snow removal on TMWA roads into the project site will be the responsibility of TMWA.
14. Suggested laydown areas are shown on the map included as Attachment 3. Contractor shall maintain TMWA access to all facilities during construction.
15. As discussed during the pre-bid meeting, portions of the turbine requiring removal must be replaced utilizing the services of a certified millwright. Also, the turbine flange to which the penstock connects must be protected during construction. For clarity, these items are shown on the exhibit under Attachment 4. A list of possible millwrights in the northern California area can be found at: http://www.thomasnet.com/northern-california/millwrights-51533321-1.html

END OF CLARIFICATIONS AND QUESTIONS/RESPONSES SECTION

Attachment 1

Stormwater Construction Permit NVR100000

Re: Stormwater Construction Permit NVR100000
Site ID: CSW-39634
Project Name: Fleish Hydro Access

Date: 6/23/2014

Owner: Truckee Meadows Water Authority

Brent Eisert
1355 Capital Blvd

Reno NV 895203013

Operator: Truckee Meadows Water Authority

Brent Eisert
1355 Capital Blvd

Reno NV 895203013

Renew NO *** If this is a Renewal Application, NO filing fee is required.**

Submission of this Electronic Notice of Intent constitutes notice that the Permittee identified in this request intends to be authorized by a permit issued by the State of Nevada and has or will comply with the following:

1. The Permittee will comply with all applicable permit conditions,
2. The Permittee understands that implementation of all controls required under by a General Permit will begin at the time the permittee commences work on the project identified in this application;
3. The Permittee understands that failure to submit the required $200.00 fee and this signed Certification Page within 30 days of the electronic submittal will result in failure for eligible coverage under the General Permit; and,
4. That Nevada Administrative Code (NAC) 445A requires that a Permittee (discharger) who is covered under a general permit shall pay to the Director/Division an annual services fee on or before July 1 of each year that the discharger is covered under that permit; and,
5. To terminate coverage of a General Permit, the Permittee must submit a Notice of Termination ("NOT") form when their facility no longer has any discharges associated with the site identified in this application for General Permit coverage.

Please mail the filing fee of $200.00 along with this notice to:

Bureau of Water Pollution Control
Nevada Division of Environmental Protection
901 South Stewart Street, Suite 4001
Carson City, NV 89701-5249

Should you have any questions, please contact (775) 687-9492.

Project located in whole or in part on tribal lands: No

NOI Certification Statement

"I hereby certify that I am familiar with the information contained in the application and that to the best of my knowledge and ability such information is true, complete, and accurate."

Owner or Operator Name (Please Print): Truckee Meadows Water Authority

Signature (Please use a Non-Black Ink Color): Brent Eisert

Any person who knowingly makes any false statement, representation, or certification in any application, record, report, plan, or other document filed or required to be maintained by the provisions of Nevada Administrative Code (NAC) 445A, or by any permit, rule, regulation, or order issued pursuant thereto, or who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under the provisions of Nevada Administrative Code (NAC) 445A, inclusive, or by any permit, rule, regulation, or order issued pursuant thereto, is guilty of a gross misdemeanor and shall be punished by a fine of not more than $10,000 or by imprisonment in the county jail for not more than 1 year, or by both fine and imprisonment.

Attachmed File: N/A

Table of Contents

I. Project Description

A. Description of the Proposed Construction Activity [§ III.A.1.f]	
Activities under the SWPPP associated with this construction will consist of limited clearing and grubbing of laydown site; installation and storage of construction facilities and equipment; and hauling and stockpiling tunnel spoils.	
Total Area of Site (acres)	2
Total Area to be disturbed by excavation, grading, or other construction activities including on and off-site borrow and fill areas (acres) [§ III.A.1.h]	2

B. Intended Sequence of Major Soil Disturbing Activities [§ III.A.1.g] (include dates when these activities occur.)	
1.	Transporting equipment onsite (7/8/2014)
2.	Clearing and rocking of laydown area (7/8/2014 – 7/14/2014)
3.	Installing office trailers (7/15/2014 – 7/21/2014)
4.	Stockpile tunnel spoils (8/11/2014 – 11/21/2014)

C. Existing Soil and Water Quality Data [§ III.A.1.i]

Provide a description of the existing soil and/or water quality data of any discharges from the site, if available. Water quality data for adjacent waterways that may receive discharges from the site is also recommended.

Soil descriptions and classifications described in this section are based on the Geotechnical Baseline Report (GBR) for the Fleish Tunnel Project prepared by Condor Earth Technologies, Inc, dated May 9, 2014; the *Custom Soil Resource Report for Tahoe National Forest Area, California*; *and Washoe County, Nevada, South Part, Fleish Tunnel Project*, produced by the USDA Natural Resources Conservation Service (NRCS) National Soil Survey website: http://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm, prepared July 2, 2014 for Drill Tech Drilling & Shoring, Inc; and on observations performed by Drill Tech personnel on June 30, 2014.

The soil exposed on the surface generally consists of glacial till consisting of boulders, cobbles, and gravel in a matrix of sand and silt, extending to an average depth of 7 inches overlying a more clayey matrix, which extends to depths of 20 to 39 inches. Underlying the till, at depths ranging from 20 to 39 inches, is bedrock consisting of highly to moderately weathered

granodiorite. The soil of this site is classified by the NRCS as unit 772 – Booford very sandy loam, and has a general USCS classification of silty sand, SM.

The soil of this site has an erosion hazard rating of “slight” for soil loss from off-road areas after disturbance activities expose the soil surface, indicating that little to no erosion is likely. This rating is based on slope and soil erosion factor K. Soil losses are caused by sheet or rill erosion where 50 to 75 percent of the surface has been exposed.

The rating for rutting hazard is “slight,” indicating that little to no rutting will occur with this soil. The K factor for the soil is 0.10, and it belongs to the wind erodibility group of 6. For wind erodibility, groups range from 1 to 7, with 1 being the most erodible, indicating that this soil is slightly susceptible to wind erosion when exposed.

The soil generally has a high saturated hydraulic conductivity (Ksat), however, it belongs to the hydrologic soil group D, indicating that it has a slow infiltration rate with a high runoff potential when thoroughly wet. This is likely due to the fact that the highly permeable soil layer is relatively shallow, and lies over a less permeable bedrock layer. Additionally, the probability of ponding on this soil is low.

D. Runoff Coefficients [§ III.A.1.i].

Use the following worksheet for sites with only 1 or 2 land uses, such as an undeveloped site with a proposed parking lot. For sites with 3 or more land uses (pre and/or post-project) attach a separate worksheet.

1. Describe Pre-Project Conditions and Land Use(s)

The pre-project condition of the site is remote mountain woodland, used by wildlife and for recreation

2. Pre-Project Land Use 1	Coefficient		Acres (A1)			C1
	0.3	x	2	=		0.6
3. Pre-Project Land Use 2	Coefficient		Acres (A2)			C2
	0	x	0	=		0
4. Average Pre-Project Runoff Coefficient			(C1 + C2) / (A1 + A2) =			**0.3**
5. Post-Project Land Use 1	Coefficient		Acres (A3)			C3
	0.3	x	2	=		0.6
6. Post-Project Land Use 2	Coefficient		Acres (A4)			C4
	0	x	0	=		0
7. Average Post-Project Runoff Coefficient			(C3 + C4) / (A3 + A4) =			**0.3**

II. Site Layout Maps

***Attach the Following*:**

A. General Location Map showing nearby roads and highways [§ III.A.1.j.]

B. Detailed Site Map [§ III.A.1.j.i. - xiii.] ***updated and revised as site conditions change, new BMPs are implemented, and areas are stabilized*.**

The Detailed Site Map must be drawn to scale and indicate the following:

1. Existing and proposed topography, including drainage patterns and approximate slopes.
2. Areas where soils will be disturbed and areas that will not be disturbed.
3. Locations of onsite and offsite soil borrow and stockpile areas.
4. Locations of major structural and non-structural BMPs identified in this SWPPP.
5. Locations where stabilization practices will be applied.
6. Locations where vehicles and equipment will be stored and maintained.
7. Locations of onsite and offsite material and waste storage areas.
8. Locations of concrete washout areas.
9. Locations and aerial extent of all surface waters (including ephemeral water bodies, dry washes and wetlands) that may receive discharges from the disturbed areas of the project.
10. Locations where storm water discharges will enter surface waters, the municipal storm drain system and/or ephemeral waters or dry washes at or near the site.
11. Location and description of any discharge associated with industrial activity other than construction, including storm water discharges from dedicated asphalt or concrete plants;
12. Areas where final stabilization has been accomplished;
13. A legend describing all symbols, BMP numbers and abbreviations used on the map.
14. A north arrow and a map scale.

PLEASE SEE APPENDIX A FOR GENERAL LOCATION MAP
PLEASE SEE APPENDIX B FOR SITE PLAN

C. Industrial Discharges [§III.A.1.j.xi]

Provide the location and description of any discharge(s) associated with industrial activity other than construction, including any storm water discharges from dedicated asphalt or concrete plants covered under General Permit NVR100000.

There are no industrial activities associated with this site.

III. Receiving Waters

A. Receiving Water(s) Identification [§III.A.1.j.xii]:

Identify the name and location of the streams, rivers, ditches, drainages, lakes, wetlands (both perennial and intermittent), or other special aquatic sites that will be disturbed or will receive runoff from the construction site. If the site will drain to the municipal storm drain system, identify the receiving water to which the system discharges.

The Truckee River is located downslope from the site by approximately 550 feet. However, the portion of the Truckee river that will receive stormwater discharges is in California. The Nevada portion of the Truckee river is not adjacent to the laydown site. The Truckee river also runs adjacent to the road accessing the site. No construction water will be discharged to the Truckee River.

B. 303(d) Impaired Water Body Listing [§III.A.10.b]:

Check the current 303(d) listing of Impaired Water Bodies, issued by the Nevada Division of Environmental Protection (http://ndep.nv.gov/bwqp/standard.htm). If any of the receiving waters noted above appear on the 303(d) list, describe: a) the condition for which the water body has been listed, b) whether discharges from the site will contribute significantly to any 303(d) listing, and c) the BMPs that will be implemented to ensure that discharges from the site will not cause or contribute to an exceedance of State water quality standards.

The Truckee River at the Nevada-California state line is not listed as impaired. Additionally, the portion of the Truckee river adjacent to this site is located in California. The portion of the Truckee river which is adjacent to the access road within Nevada does appear on the 303(d) list as NV06-TR-02_00 (Nevada-California state line to Idlewild) and has been listed as impaired for Aquatic Life based on the parameter of water temperature. The discharges from the access roads will not contribute significantly to any Truckee River water temperature changes.

C. Total Maximum Daily Load (TMDL) requirements [§III.A.10.b]:

Does the construction site discharge runoff into a water body with an established TMDL?
☐**YES** ☒**NO**

Describe the BMPs that will be applied to comply with all applicable TMDL requirements

N/A

IV. BMP Implementation

A. Storm Water Best Management Practices (BMPs)	
Describe each storm water control measure and the general sequence of implementation during the construction process. Clearly identify the BMPs that will be used for each of the major soil-disturbing activities identified in Section I.B, above [§ III.A.2]. **Describe the design, installation and maintenance of each BMP, and indicate the parties that will be responsible for carrying out these functions for each control measure. Control measures must be properly selected, installed, and maintained in accordance with the manufactures specifications and good engineering practices.** **Offsite material storage areas used solely by the permitted project must also be addressed [§ III.A.3].**	
1.	The first piece of equipment to be brought to the site will be a water truck. The water truck will continually wet down all access roads to keep dust kicked up from equipment traffic from migrating off the road as equipment is mobilized. The access roads to the site are pre-existing, and have already been established, graded, and generally packed or covered in rock and gravel. The roads will be continually maintained using water sprinkling to keep wind erosion to a minimum. Equipment to be brought onsite will be steam cleaned prior to arrival, and the process will be documented via photographs. The equipment shall be kept in well maintained condition, with any leaks addressed immediately, and any spills cleaned immediately with spill kits stationed at areas of equipment storage. The spill kits shall include: • Packs of absorbent pads • Oil absorbent materials such as kitty litter • Chemical resistant gloves • Plastic garbage bags to collect contaminated materials • Materials kept in a conspicuous container such as a 55-gallon drum or plastic trash can. Keep covered Spill kits shall be inspected during the weekly site inspection to ensure that sufficient quantities of materials are kept on hand at all times. Prior to each use, equipment will be inspected for oil or grease leaks. In the event of a leak, the equipment shall be repaired immediately. All oil and grease residue shall be wiped off prior to placing the equipment back into service. All hazardous material shall be stored in appropriate containers with secondary

	containment of a volume 150% greater than the storage container. Secondary containment shall be kept free of debris, water, and materials. Generators and air compressors shall be stored in secondary containment. Sanitary facilities will contain septic waste and shall be maintained professionally by the company supplying the facilities. Inspections of all facilities shall occur following heavy wind events. Repair shall occur immediately if required, and spills shall be cleaned properly.
2.	Clearing and grubbing will be limited to only what is absolutely necessary. As many trees as possible will be left in place and underbrush will be left undisturbed in areas not in use. Disturbed areas will be covered with mulch. Silt fence will be installed in perimeter locations as shown on the Site Map prior to substantial soil disturbance activities at the laydown area. Silt fence shall be installed as follows: • Locate a 6 in x 6 in trench on upstream side of the fence • Overlap 6 in of fabric into the trench • Fill trench with tamped native soil • Drive in fence posts on downstream side of the fabric spaced 8 feet on center and staple silt fence to posts This work will be concurrent with clearing and rocking of the site. Silt fence shall be inspected weekly and after storm events and sediment cleaned out when it reaches one-third the height of the silt fence. Any torn or degraded silt fence shall be replaced immediately. A water truck or sprinkling through a hose from onsite water tanks will be used to keep the area wet to mitigate the dust. The heavy traffic area in front of the construction trailers and storage boxes will have aggregate base laid out to protect the soil from excessive erosion. The parking area for construction equipment and light vehicles will be covered in aggregate base and will have spill kits placed in locations shown on the map. A stabilized construction entrance will be installed as shown to protect the site from the migration of fines and prevent sediment from migrating onto the roads from the site. All employees and visitors on the site will be trained in the purpose and scope of the SWPPP. During the weekly safety meetings on Monday mornings, SWPPP and environmental controls will be addressed to serve as a reminder for maintenance.
3.	Once major stockpiling activities have commenced, straw wattles will be placed around the

	toe of the stockpile. Straw wattles shall be installed as follows: • Create a 2-4 in wide concave trench • Remove rocks and debris and lay the straw wattle in the trench • Stake the wattle through both ends and at the middle of the roll, and stake a minimum of 4 feet on center using one inch diameter stakes, 18 inches long, alternating sides with each subsequent stake • Overlap ends of continuous rolls • Place rows of wattles no more than 20 feet apart Straw wattle shall be inspected weekly and after storm events and sediment cleaned out when it reaches three-quarters the height of the straw wattle. Any torn or degraded straw wattle shall be replaced immediately. The tunnel spoil pile will be watered as necessary to keep dust from migrating off site. Haul trucks transporting material to the stockpile pile shall maintain at least two feet of free board to prevent material from being dropped or the generation of dust. A stabilized gravel road shall be maintained through the site to the stockpile as shown on the site plan.
4.	The Truckee Meadows Construction BMP handbook is hereby referenced and shall be followed for installation and maintenance practices.

B. Temporary Soil Stabilization Practices [§ III.A.5]

Describe the interim or temporary stabilization BMPs (e.g. soil binders, revegetation and/or mulching) that will be provided on stockpiles and disturbed portions of the site where construction activity is expected to cease for 14 days or more and will not be resumed within 21 days.

There is currently no portion of the site that is expected to cease activity for 14 days. In the event that unforeseen events leads to activities being ceased for 14 days, mulch will be used to stabilize the tunnel spoils pile.

C. Permanent Soil Stabilization Practices [§III.A.5]

Describe the permanent stabilization BMPs (e.g. permanent revegetation and/or rolled erosion control products) that will be provided on disturbed portions of the site where construction activities have permanently ceased.

Straw wattles will be left in place while around the toe of the stockpile. One row of straw wattles will be placed on the downstream slope of the stockpile to reduce stormwater velocity and erosion of the pile. All disturbed areas will be covered in 2” of mulch.

D. Structural Practices [§ III.A.6]

Provide a description of the temporary and permanent erosion and sediment control BMPs (e.g. silt fences, fiber rolls, earth dikes, drainage swales, check dams, sediment traps, storm drain inlet protection, etc.) that will be used during construction to divert flows from exposed soils, and/or temporarily store flows and limit runoff from the exposed areas of the site.

For common drainage locations serving areas with ten (10) or more acres of disturbed soils, sediment basins shall be provided until final stabilization of the site. Sediment basins must be designed to the criteria outlined in the Truckee Meadows Construction Site BMP Handbook. From May to October, water must not be allowed to pond in any structural practice in excess of 7 days.

Velocity dissipation devices (e.g. rock outlet protection, channel lining, etc.) must be placed at stormdrain pipe outfall locations and along the length of channels to reduce flow velocities and prevent erosion and degradation of receiving waters.

Structural practices that will be used during construction include silt fence and straw wattles placed as shown on the Site Plan. These elements will limit the migration of fines off the site and will serve to slow the velocity of storm water running across the site by reducing slope lengths and spreading runoff as sheet flow.

E. Post-Construction Storm Water Management Controls [§ III.A.7]

Provide a description of the permanent measures that will be installed during construction to control pollutants in storm water discharges that will occur after construction is complete. These permanent storm water management BMPs include structural treatment controls and Low Impact Development (LID) practices such as vegetated swales, landscape detention, sedimentation basins, and sand filters (refer to the Truckee Meadows Structural Controls Design Manual and LID Handbook). Permittees are responsible for the installation and maintenance of these storm water BMPs until an approved Notice of Termination is received by NDEP. The installation of these devices may also require a separate NPDES permit.

Post-Construction Storm water management controls will consist of covering disturbed areas of the site in mulch.

F. Non-Storm Water Discharge Management [§ III.A.8.]

Provide a description of the activities that may produce non-storm water discharges, the measures used to reduce or eliminate non-storm water discharges, and the BMPs used to minimize pollutants in any non-storm water discharges that may occur. Non-storm water discharges include, but are not limited to water line flushings, vehicle or building wash-down, and dewatering from excavation (see §I.D.2 for a full list).

Activities that may produce non-stormwater discharges include:

- Discharges from fire-fighting activities, if necessary
- Potable water storage and consumption

- Air conditioning and air compressor condensate
- Water for dust control sprinkling

These discharges will generally be small and/or extremely infrequent, and the BMPs installed for stormwater are sufficient to control these non-stormwater discharges.

V. Other Controls

A. Material Storage, Spill Prevention and Response [§ III.A.9.a]

Provide a description of the construction materials and chemicals that are expected to be stored onsite, with updates as appropriate. Describe the BMPs that will be provided to ensure proper storage of these construction materials that will minimize their exposure to storm water. Describe the response measures that will be provided if a spill occurs.

Construction materials and chemicals that will be stored onsite are as follows:

MATERIAL	STORAGE	SPILL PREVENTION AND CONTAINMENT
Red diesel fuel	1000 gallon tank	Tank is double walled. Tank placed in secondary containment made of wood planks with plastic sheet lining with 150% volume
Hydraulic oil	Drums	Stored covered in conex, placed in plastic bins with 150% volume for secondary containment
Gear Lubricant	Drums	Stored covered in conex, placed in plastic bins with 150% volume for secondary containment
Explosives (blasting caps)	Magazine	Only authorized, trained personnel may access explosives. Caps are not a spill hazard.
Super sacks of dry shotcrete mix	Sacks	Stored covered by plastic sheeting.

Super sacks of dry cement	Sacks	Stored covered by plastic sheeting.
Resin cartridges for rock bolts	Boxes	Stored under cover in conex
WD-40	Aerosol can	Stored under cover in conex
Brake Fluid	Plastic jugs	Stored under cover in conex
Antifreeze	Plastic jugs	Stored under cover in conex
Transmission Fluid	Plastic jugs	Stored under cover in conex
Sanitary Fluids	Contained within portable toilets	Contained within portable toilets

All materials not identified in this plan that are brought onsite shall be added to this plan.

Spills involving the above materials shall be cleaned up with spill kits immediately and the designated SWPPP inspector shall be immediately notified. In the event of a large spill, specialists shall be contacted to clean the spill as soon as possible. All waste containers shall be constructed of a suitable material and properly labeled. Labels must include type of material, time of collection and site location.

Size temporary containment for stored materials at least 1.5 times the volume of the stored material. Materials must be stored in leak free containers. Temporary containment areas shall be free of accumulated storm water, debris, trash and spills. Temporary containment areas shall have room between containers for emergency response and cleanup. Different materials shall not be stored in the same container. Do not locate temporary containment areas near watercourses. Store containers on pallets under a covered, protected area. Do not dispose of liquid waste in dumpsters or other solid waste containers. Employees shall be educated in waste storage and disposal. Immediately repair all liners used for storage or containment when damaged.

If any illicit discharges are detected, it shall be reported immediately.

B. Offsite Vehicle Tracking Controls [§ III.A.9.b]

Provide a description of the control measures that will be provided to prevent tracking or deposition of sediments offsite and the measures that will be used to remove any sediments that have been deposited on the paved roadways bordering the site.

A stabilized construction entrance will be constructed at the site entrance to prevent tracking and deposition of sediments onto the access roads.

C. Dust Control [§ III.A.9.b]

Describe the control measures that will be used to prevent the generation of dust on-site.

Dust control will be achieved by the use of a 2000 gallon water truck that will continually wet down the site and any stockpile.

D. Construction Waste Storage and Disposal [§ III.A.9.d]

Describe the wastes that will be generated onsite. Construction wastes include concrete washout, excess building materials, chemicals, litter and debris. Describe the BMPs that will be used to temporarily store these wastes, how they will be collected and disposed, and the response measures that will be provided if a spill occurs.

Excess construction materials such as steel, resin cartridges, cement, etc. shall be removed from the site at the completion of the project and stored elsewhere. Chemical wastes shall be collected and stored in appropriate containers and disposed of properly according to local, state and federal regulations. Litter and trash on the site shall be picked up regularly and disposed of in trash containers that shall be emptied no less frequently than bi-weekly, or sooner if needed. Good housekeeping practices shall be followed at all times.

E. Hazardous and Sanitary Waste Storage and Disposal
Provide a description of the hazardous and/or sanitary wastes that are expected to be generated at the site, the measures used to temporarily store these wastes, how they will be collected and disposed and the response measures that will be provided if a spill occurs.
Hazardous and sanitary wastes are as described in Section V.A, and storage of these materials are as described in that section. Waste from hazardous materials will be collected in appropriate containers and disposed of offsite properly according to all regulations. Sanitary wastes shall be disposed of professionally by the company providing the temporary facilities.
F. Offsite Discharges [§ III.A.9.e]
Provide a description of the potential offsite pollutant sources and the BMPs that will be provided to minimize storm water pollution from these sites. Offsite sources may include dedicated sites such as asphalt or concrete plants.
N/A
G. Soil Stabilization at Culverts [§ III.A.9.c]
Provide a description of the measures used to sufficiently stabilize soil at culvert locations to prevent the formation of rills and gullies during construction.
No culverts will be installed for this work.

VI. Inspection/Maintenance Procedures

The contractor or his qualified agent is required to routinely inspect all areas of disturbed and bare soil, areas used for storage of materials and equipment that are exposed to precipitation, onsite vehicle entrance and exit locations and all onsite erosion and sediment control BMPs. Inspectors must also observe discharge locations to receiving waters to ensure proper operation of sediment and erosion control measures. **Inspections shall occur weekly, prior to forecasted rain events, and within 24 hours after any actual rain event of 0.5 inches or greater.** Sediments must be removed when the BMP design capacity has been reduced to 50%. Construction materials, chemicals, wastes, litter and debris must be prevented from becoming a storm water pollutant source. When sediment escapes the construction site, off-site accumulations of sediment must be removed to ensure no adverse effects on water quality and public safety [§ III.A.4]

The following sources may be used to obtain weather forecasts:

- The National Weather Service: Telephone: (775) 673-8100, **http://www.wrh.noaa.gov/Reno/**
- The Western Regional Climate Center, **http://www.wrcc.dri.edu/CURRENTOBS.html**

- The Weather Channel, **http://www.weather.com/weather/local/USNV0076?from=search_city**

Once storms are imminent, a portable NOAA weather radio can also provide useful information. NOAA weather radio broadcasts are made on one of seven high-band FM frequencies. These frequencies are typically available only on radios that provide a "weather band" as an added feature or portable weather radios that exclusively provide weather broadcasts. The local FM frequency for the Reno/Sparks area is 162.500 MHz. Taped weather messages are repeated every four to six minutes and are routinely revised at least once every one to three hours, 24 hours daily.

A. Inspection and Maintenance of Best Management Practices [§III.A.11-12]
Provide a description of the practices that will be used to inspect and maintain all Temporary and Permanent Stabilization Practices Structural Practices, Post-Construction Storm Water Management Controls and Non-Storm Water Discharges described in Section IV, above. Maintenance shall be performed if any BMP is not operating effectively or if the capacity has been reduced by 50%. Maintenance must be conducted as soon as practicable and before the next anticipated storm event.
Silt fence and straw wattles shall be visually inspected for accumulation of sediment, tears, degradation, and overall condition. Any material showing tears or poor condition shall be replaced immediately, and sediment accumulation greater than one-third the height of the silt fence or three-quarters the height of the straw wattle shall be cleaned. Areas downstream of the controls shall be inspected for sediment to determine the effectiveness of the controls. The stabilized construction entrance shall be kept free of excessive sediment accumulation. Gravel roads shall be maintained as long as they are in use. Much shall be replaced as it degrades. Missing components of spill kits shall be replaced immediately.
B. Inspection and Maintenance of Other Controls [§III.A.11-12]
Provide a description of the practices that will be used to inspect and maintain all Other Controls described above in Section V,
Secondary containment shall be inspected for cleanliness and effectiveness.
C. Inspector Qualifications [§III.A.12c]
Describe the qualifications of the person(s) selected to inspect the BMPs discussed above. "Qualified Personnel" means someone knowledgeable in the principles and practice of erosion and sediment control who possess the skills necessary to assess the site conditions and the effectiveness of BMPs.

VII. Certifications of Compliance

This SWPPP must be certified that it is consistent with all applicable Federal, State and Local regulations, or other approved site plans or permits. It is to be prepared in accordance with the latest version of the Truckee Meadows Construction Site Best Management Practices Handbook. This SWPPP must be updated as necessary to remain consistent with changes in other site plans that effect soil disturbing activities, site drainage patterns or any other activity that may impact storm water runoff quality. It must also be re-certified annually by July 1 until the construction project is complete and a Notice of Termination has been submitted to NDEP.

A. OWNER/OPERATOR CERTIFICATION STATEMENT [§ V.B.1.d]

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. I also confirm that a storm water pollution prevention plan (SWPPP) has been completed, will be maintained at the project site from the start of construction activities, and that the SWPPP will be compliant with any applicable local sediment and erosion control plans. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines for knowing violations.

Initial Certification:	
Print Name:	Title:
Signature:	Date:
Annual Re-Certification	
Print Name:	Title:
Signature:	Date:

All contractors and subcontractors responsible for implementing pollution control measures must be identified in this SWPPP with the measures for which they are responsible. They must also sign the following certification statement that indicates they understand the requirements of the attached General Permit for Construction Activities (Attach additional sheet if necessary for additional contractors).

B. CONTRACTOR'S CERTIFICATION STATEMENT

I certify under penalty of law that I understand the terms and conditions of the State's General Permit (NVR100000) that authorizes storm water discharges associated with industrial activity from the construction site identified as part of this certification.

Company 1		
Print Name:		Title:
Signature:		Date:
Company 2		
Name:		Phone:
Address:		
City:	State:	Zip:
Print Name:		Title:
Signature:		Date:
Company 3		
Name:		Phone:
Address:		
City:	State:	Zip:
Print Name:		Title:
Signature:		Date:

VIII. Records of Inspection and Construction Activities

A. Record of Major Construction Activities and BMP Implementation [§ III.A.5.b]
Provide the dates of when major grading activities occur, the dates when construction activities on a portion of a site temporarily or permanently cease, and list the dates when temporary and permanent stabilization practices are implemented. Photo documentation of major construction activities and implementation of BMPs is strongly recommended.
TO BE UPDATED IN APPENDIX D ONCE CONSTRUCTION COMMENCES

B. Record of Construction Site Inspections [§ III.A.12.e-f]
Provide a record of inspection reports to include the name and qualifications of person making the inspections, the dates of inspection, and major observations relating to the implementation of the SWPPP. Major observation should include the location(s) of discharges of sediment or other pollutatnts from the site, location(s) of BMPs that need to be maintained, location(s) of BMPs that failed or proved to be inadequate, and location(s) where additional BMPs are needed. All issues of non-compliance shall be noted. If the site is in full compliance with this SWPPP and permit NVR100000 on the date of inspection, the report shall contain a certification of compliance. These records shall be retained as part of the SWPPP for at least three years from the date that permit coverage expires or the site is finally stabilized.
TO BE UPDATED IN APPENDIX D ONCE CONSTRUCTION COMMENCES. SAMPLE FORM INCLUDED IN APPENDIX E

C. Record of Follow-up Actions
Based on the results of the inspections conducted above, provide a record of the follow-up maintenance and corrective actions conducted at the site. Implementation of follow-up actions should occur within seven (7) days following receipt of inspection results or prior to the next anticipated storm event.
TO BE UPDATED IN APPENDIX F

ndep
NEVADA DIVISION OF ENVIRONMENTAL PROTECTION
protecting the future for generations

STATE OF NEVADA
Department of Conservation & Natural Resources
DIVISION OF ENVIRONMENTAL PROTECTION

Jim Gibbons, Governor
Allen Biaggi, Director
Leo M. Drozdoff, P.E., Administrator

Stormwater General Permit NVR100000

In compliance with the provisions of the Federal Clean Water Act as amended (33 U.S.C. 1251 et seq: the "Act") and Chapter 445A of the Nevada Revised Statutes (NRS), eligible dischargers who have submitted a Notice of Intent, filing fee, and have a Stormwater Pollution Prevention Plan(s) completed and maintained on the permittee's site location in accordance with this permit, are authorized to discharge

Stormwater Associated with Large Construction Activity

or

Stormwater Associated with Small Construction Activity

and

Stormwater Associated with Industrial Activity from Temporary Concrete, Asphalt, and Material Plants or Operations Dedicated to the Permitted Construction Project

to Waters of the United States in accordance with the conditions set forth in Parts I - V hereof.

This permit shall become effective on September 16, 2007.

This permit and the authorization to discharge shall expire at midnight September 15, 2012.

Signed this 14th day of September, 2007.

Steve McGoff, P.E.
Bureau of Water Pollution Control

PART I. COVERAGE UNDER THIS GENERAL PERMIT

A. **Permit Area.** This General Permit covers the State of Nevada, except for Tribal Areas.[1]

B. **Objective.** The objective of this permit is to control and reduce pollution of Waters of the U.S. ("WOUS") from: Stormwater Discharges Associated with Large Construction Activity; Stormwater Discharges Associated with Small Construction Activity; and Stormwater Discharges Associated with Industrial Activity from temporary plants or operations set up to produce concrete, asphalt, or other materials for the permitted construction project; through the use of Best Management Practices ("BMPs"), as defined in Appendix A. In addition, BMPs shall include erosion and sediment controls, stormwater conveyance, stormwater diversion, and treatment structures, and any procedure or facility used to minimize the exposure of pollutants to stormwater or to remove pollutants from stormwater. Discharges to storm drain systems that in turn discharge to WOUS are considered to be discharges to WOUS.

C. **Eligibility.** This General Permit authorizes discharges from stormwater discharge associated with large construction activity as defined in Appendix A, small construction activity as defined in Appendix A and industrial activities as defined in Appendix A provided the operator complies with all the requirements of this general permit and submits a Notice of Intent ("NOI") in accordance with Part II of this general permit.

Any discharges that do not comply with the eligibility conditions of this permit are not authorized by the permit. A person must either apply for a separate National Pollutant Discharge Elimination System ("NPDES") permit to cover the ineligible discharge(s), cease the discharge(s), or take the necessary steps to make the discharge(s) eligible for coverage under this permit.

D. Authorized Discharges

1. Allowable Stormwater Discharges. Subject to compliance with the terms and conditions of this permit, an operator may discharge pollutants in:
    a. Discharges of stormwater runoff associated with construction activities as defined in Appendix A;
    b. Discharges that are designated by NDEP as requiring a stormwater permit under 40 CFR 122.26(a)(1)(v); 40 CFR 122.26(b)(15)(ii); or under 40 CFR 122.26(a)(9);

1 The State of Nevada, Division of Environmental Protection, Bureau of Water Pollution Control does not have permit authority for Tribal Lands. Construction discharge permits for Tribal Lands within the state must be acquired through EPA Region IX.

c. Discharges from support activities(e.g. concrete or asphalt batch plants, equipment staging yards, material storage yards, excavated material disposal areas, borrow areas) provided:
    i. The support activity is directly related to a construction site that is required to have NPDES permit coverage for discharges of stormwater associated with construction activity;
    ii. The support activity is not a commercial operation serving multiple unrelated construction projects by different operators and does not operate beyond the completion of the construction activity at the last construction project it supports; and
    iii. Appropriate controls and measures covering the discharges from the support activity areas are identified in a stormwater pollution prevention plan ("SWPPP").
d. Non-stormwater discharges as noted in Part I.D.2 or as otherwise specifically allowed by the permit; and
e. Discharges comprised of a discharge listed in Part I (a) through (d) commingled with a discharge authorized by a different NDPES permit and/or discharge that does not require NPDES permit authorization.

2. Miscellaneous Non-Stormwater Discharges. An operator may discharge the following non-stormwater discharges, provided they are not a significant source of pollutants and the operator implements appropriate BMPs to minimize pollutants discharged per Part III:

    a. Discharges from fire-fighting activities. Although fire-fighting drainage may contain significant pollutant concentrations, the frequency of discharge is low and the discharge and is hereby authorized out of necessity;
    b. Fire hydrant flushing;
    c. Water used to wash vehicles where detergents are not used;
    d. Water used to control dust, provided effluent or other wastewaters are not used;
    e. Potable water sources including water line flushing;
    f. Routine external building wash down where detergents are not used;
    g. Pavement wash waters where spills or leaks of toxic or hazardous materials have not occurred (unless all spilled material has been removed) and where detergents are not used;
    h. Uncontaminated air conditioning or compressor condensate;
    i. Uncontaminated groundwater or spring water;
    j. Foundation or footing drains where flows are not contaminated with process materials such as solvents;
    k. Potable water well flushing where the receiving waters are ephemeral;
    l. Water used for compacting soil, provided effluent or other wastewaters are not used;

m. Water used for drilling and coring such as for evaluation of foundation materials, where flows are not contaminated with additives; and
n. Water obtained from dewatering operations of foundations in preparation for and during excavation and construction that will have flows of 300 gallons per minute ("gpm") or less for thirty (30) days or less.

E. Limitations of Coverage

1. Post Construction Discharges. This permit does not authorize stormwater discharges that originate from the site after construction activities have been completed and the site, including any temporary support activity site, has undergone final stabilization. Post-construction stormwater discharges from industrial sites may need to be covered by a separate NPDES permit.
2. Prohibition on Discharges Mixed With Non-Stormwater. This permit does not authorize discharges that are mixed with sources of non-stormwater, except as allowed in Part I.D.
3. Discharges Covered by Another NPDES Permit. This general permit does not authorize stormwater discharges associated with construction activities that have been covered under an individual permit or have been required to obtain coverage under an alternative general permit. Construction discharges at mining operations are covered under the Mining General Permit NVR300000.
4. Discharges Threatening Water Quality. This general permit does not authorize discharges that will cause or contribute to non-attainment of water quality standards or to the designated use of receiving waters. The operator must design and implement BMPs sufficient to meet this requirement.

F. Waiver for Small Construction Activities. NDEP may exempt a small construction operator from the requirement to obtain coverage under a stormwater permit, if certain criteria are met and proper application procedures followed.

1. Low Erosion Potential. If the small construction site is between 1 acre and 5 acres and the rainfall erosivity factor calculation ("R" in the Revised Universal Soil Loss Equation) is less than 5 during the **entire** period of construction activity, the site will be eligible for a waiver. The applicant must certify to NDEP that construction activity will occur only when R is less than 5. The erosivity factor can be calculated using NDEP's NOI database.

   The period of construction activity begins at initial earth disturbance and ends with the final site stabilization. The operator must submit a Permit Waiver electronically to NDEP in accordance with Part II of this permit before commencing construction activities in accordance with Part II.

   Persons that are not required to file for permit coverage per this section must operate exempt construction sites in a manner that minimizes pollutants in the discharge. In the event discharges from the site may cause or contribute to non-

attainment of water quality standards, NDEP may require the operator to obtain permit coverage.

Note: Construction activities that will disturb 5 acres or more cannot be exempted from stormwater permitting requirements. Also, construction activities less than 5 acres, but the parcel is part of a greater (5 acres or more) common plan of development or sale cannot be exempted.

G. Requirement for Individual Permit. NDEP may require the holder of a general stormwater permit to apply for and obtain an individual permit in accordance with NAC 445A.269.

H. Requirement for Stormwater Permit for Projects Less Than 1 Acre. If NDEP determines that a project less than one (1) acre in size will impact receiving waters or its tributaries within a 1/4-mile radius of the project, the owner of the project will be required to obtain a stormwater permit and abide by the terms of this permit.

I. Waiver for Certain Oil and Gas Operations. NDEP may not require a permit for discharges of storm water runoff from construction operations at oil and gas exploration, production, processing or treatment operations or transmission facilities, composed entirely of flows which are from conveyances or systems of conveyances (including but not limited to pipes, conduits, ditches, and channels) used for collecting and conveying precipitation runoff and which are not contaminated by contact with or that has not come into contact with, any overburden, raw material, intermediate products, finished product, byproduct or waste products located on the site of such operations. A permit will be required if a stormwater discharge from a construction operation at an oil and/or gas exploration, production, processing, treatment, or transmission facility contributes to a violation of a water quality standard (except for discharges of sediment.)

PART II. REQUEST FOR INCLUSION UNDER THIS GENERAL PERMIT

A. Application for Coverage. A person may be authorized to discharge under this general permit only if the stormwater discharge is associated with construction activities with the project site. An application seeking inclusion under this permit shall:

1. Submit a Notice of Intent ("NOI") no later than two (2) days prior to the start of construction. Eligible concrete, asphalt, and material plants or operations shall be included on the NOI submitted for the construction project. The site is covered provisionally under this permit once the NOI has been received electronically by NDEP and until approval of the permit by NDEP.
2. For each new NOI, the permittee must develop and implement a SWPPP that meets the requirements of Part III of this permit and covers either the entire site or

all portions of the site for which the permittee is an operator. The SWPPP shall be prepared and maintained on the permittee's project site for these discharges.

B. NOI Electronic Filing Requirements. NOI forms must be completed on-line at NDEP's website at the following address: ***http://ndep.nv.gov/bwpc/storm_cont03.htm***. The applicant will be required to provide the following information to complete the NOI and submit it to NDEP:

1. Owner/operator (applicant) information including the name, address, city, state, zip code and phone number of both the owner and operator;
2. Project/site information including the project name, project address/location, city, state, zip code, latitude, longitude, at least one Assessor's Parcel Number ("APN") associated with the project and the county;
3. Name of the receiving water for any stormwater discharge;
4. The estimated construction start date;
5. The estimated completion date of construction;
6. An estimate of the area to be disturbed to the nearest acre;
7. An estimate of the likelihood of a stormwater discharge;
8. The address of the location where the SWPPP can be viewed including the city, state, zip code and phone number. *Note: It is not necessary to submit a copy of the SWPPP to NDEP.*

C. Submitting the Completed NOI. After completing the NOI and filing it electronically with NDEP, the applicant must perform the following steps within thirty (30) days to complete the NOI application:

1. Print out a copy of the NDEP confirmation page and sign below the certification statement. The certification statement and the person responsible for signing the NOI is discussed in Part V of this permit;
2. Write a check to "NDEP" for the required permit fees; and
3. Mail the check and confirmation page with the original signature to:

   Stormwater Coordinator
   Bureau of Water Pollution Control
   Nevada Division of Environmental Protection
   901 S. Stewart Street, Suite 4001
   Carson City NV 89701

D. Continuation of Coverage in the General Permit. To continue to be included in this general permit, holders of expired general permit NVR100000 must submit a renewal NOI to NDEP within ninety (90) days of the effective date of this permit to remain included under the original NOI. The permittee must verify that the information on the renewal NOI is valid and accurate before submitting the renewal NOI for continued inclusion. No additional filing fee is required to file this renewal NOI. In addition, the previously supplied permit identification number (CSW-xxxx) must be included with the submittal.

E. Authorization Date of the Permit. The authorization date of the new permit shall be:

1. The date the NOI is approved by NDEP; or
2. The effective date of this permit for all holders of expired general permit NVR100000 that have submitted a renewal NOI for this permit;
3. An approval letter will be sent to the applicant stating the authorization date. Special conditions may be included in the permit.
4. During the period beginning on the authorization date and lasting until permit coverage is terminated, the permittee is authorized to discharge stormwater or approved non-stormwater to WOUS, as discussed in Part I.D. and in accordance with the SWPPP and the conditions listed in this permit.

PART III. STORM WATER POLLUTION PREVENTION PLAN

A. Objective. Prior to submitting the NOI and filing fee, the SWPPP shall be completed and available for inspection at the project site for each construction project and material plant or operation covered by this permit. The purpose of the SWPPP is to identify stormwater pollution sources, reduce their impacts, and comply with the conditions of this permit. The SWPPP shall be prepared in accordance with good engineering practices and shall consist of project information, BMPs, inspection and maintenance, controls for non-stormwater discharges, and a description of permanent stormwater controls that will be built as part of the project. Each of the plan elements must be revised as necessary to maintain accuracy if there are changes in design or construction of the project or if the SWPPP is found to be insufficient. NDEP may require modifications to a SWPPP within a specified time frame. The permittee shall make the SWPPPs available upon request to the State or local agency approving sediment and erosion plans, grading plans, or storm water management plans; local government officials; or the operator of a municipal separate storm sewer receiving discharges from the site. The SWPPP must be kept on-site or locally available and must be available for review by NDEP at the time of an on-site inspection. The SWPPP shall include the following minimum elements:

1. Project Description

a. Permittee information including the company or agency, street address, city, state, zip code, and phone number;
b. Contact information of the permittee including the name, street address, city, state, zip code, and phone number;
c. The name(s) of the person(s) responsible for implementation of the SWPPP;
d. The project name;
e. The project location including the address, city, county and at least one APN associated with the project;

f. A description of the nature of the construction activity;
g. A description of the intended sequence of major activities which disturb soils for major portions of the site (e.g., grubbing, excavation, grading, utilities and infrastructure installation);
h. Estimates of the total area of the site and the total area of the site that is expected to be disturbed by excavation, grading, or other construction activities including offsite borrow and fill areas;
i. An estimate of the runoff coefficient of the site for both the preconstruction and post-construction conditions and data describing the soil or the quality of any discharge from the site;
j. A general location map of the project (e.g., a portion of a city or county map) and a site map of the project indicating the following:

i. Drainage patterns and approximate slopes anticipated after major grading;
ii. Construction activities and areas of soil disturbance;
iii. Areas of the project that will not be disturbed;
iv. Locations of major structural and nonstructural controls identified in the SWPPP;
v. Locations where stabilization practices are expected to occur;
vi. Locations of off-site material and waste;
vii. Borrow or equipment storage areas;
viii. Location of all surface waters (including wetlands);
ix. Areas where final stabilization has been accomplished and no further construction-phase permit requirements apply;
x. Locations where storm water discharges to a surface water (including ephemeral waters or dry washes) and to Municipal Separate Storm Sewer Systems ("MS4s");
xi. Location and description of any discharge associated with industrial activity other than construction, including storm water discharges from dedicated asphalt plants and dedicated concrete plants, which is covered by this permit;
xii. The name of the receiving water(s) and the aerial extent and description of wetland or other special aquatic sites at or near the site which will be disturbed or which will receive discharges from disturbed areas of the project;
xiii. Identify and address offsite material storage areas or borrow areas used solely by the permittee's project;
xiv. A copy of the permit requirements (attaching a copy of this permit is acceptable).

2. **Stormwater Controls.** Each SWPPP shall include a description of appropriate control measures (i.e., BMPs) that will be implemented as part of the construction activity to control pollutants in storm water discharges. The SWPPP must clearly describe for each major activity identified in Part III.1.g: (a) Appropriate control

measures and the general timing (or sequence) during the construction process that the measures will be implemented; and (b) which permittee is responsible for implementation.

3. **Offsite Material Storage Areas.** Offsite material storage areas (also including overburden and stockpiles of dirt, borrow areas, etc.) used solely by the permitted project are considered a part of the project and must be addressed in the SWPPP.

4. **Erosion and Sediment Controls.** The SWPPP must describe the implementation of control measures, including the following minimum components:

    a. **Design.** The construction-phase erosion and sediment controls should be designed to retain sediment on site to the degree attainable.

    b. **Selection, Installation and Maintenance.** All control measures must be properly selected, installed, and maintained in accordance with the manufacturers' specifications and good engineering practices. If periodic inspections or other information indicates a control has been used inappropriately, or incorrectly, the permittee must replace or modify the control for site situations, as soon as practicable and before the next storm event. If implementation prior to the next anticipated storm event is impracticable, maintenance must be scheduled and accomplished as soon as practicable.

    c. **Offsite Accumulation of Sediment.** When sediment escapes the construction site, off-site accumulations of sediment must be removed at a frequency sufficient to ensure no adverse effects on water quality (e.g., fugitive sediment in street could be washed into storm drains by the next rain and/or pose a safety hazard to users of public streets).

    d. **Good Housekeeping.** The SWPPP must describe good housekeeping procedures to prevent litter, construction debris, and construction chemicals exposed to stormwater from becoming a pollutant source for storm water discharges (e.g., screening outfalls, picked up daily).

5. **Stabilization Practices.**

    a. **Description and Schedule.** The SWPPP must include a description of interim and permanent stabilization practices for the site, including a schedule of when the practices will be implemented. Site plans should ensure that existing vegetation is preserved where attainable and that disturbed portions of the site are stabilized. Stabilization practices may include but are not limited to: establishment of temporary vegetation, establishment of permanent vegetation, mulching, geotextiles, sod

stabilization, vegetative buffer strips, protection of trees, preservation of mature vegetation, and other appropriate measures.

b. **Records of Stabilization.** The following records shall be maintained and attached to the SWPPP: the dates when major grading activities occur; the dates when construction activities temporarily or permanently cease on a portion of the site; and the dates when stabilization measures are initiated.

c. **Deadlines for Stabilization.** Except as provided in Part III.A.5.c.(i), (ii), and (iii) below, stabilization measures shall be initiated as soon as practicable in portions of the site where construction activities have temporarily or permanently ceased, but in no case more than fourteen (14) days after the construction activity in that portion of the site has temporarily or permanently ceased.

i. Where the initiation of stabilization measures by the fourteenth (14^{th}) day after construction activity temporary or permanently cease(s) is precluded by snow cover or frozen ground conditions, stabilization measures shall be initiated as soon as practicable.

ii. Where construction activity on a portion of the site is temporarily ceased, and earth-disturbing activities will be resumed within twenty-one (21) days, temporary stabilization measures do not have to be initiated on that portion of site.

iii. In arid areas (areas with an average annual precipitation of 0 to 10 inches), semiarid areas (areas with an average annual precipitation of 10 to 20 inches), and areas experiencing droughts where the initiation of stabilization measures by the fourteenth (14^{th}) day after construction activity has temporarily or permanently ceased is precluded by seasonal arid conditions, stabilization measures shall be initiated as soon as practicable.

6. **Structural Practices.** The SWPPP must include a description of structural practices to divert flows from exposed soils, store flows or otherwise limit runoff and the discharge of pollutants from exposed areas of the site to the degree attainable. Structural practices may include but are not limited to: silt fences, earth dikes, drainage swales, sediment traps, check dams, subsurface drains, pipe slope drains, level spreaders, storm drain inlet protection, rock outlet protection, reinforced soil retaining systems, gabions, and temporary or permanent sediment basins. Placement of structural practices in floodplains should be avoided to the degree attainable. The installation of these devices may be subject to section 404 of the Clean Water Act ("CWA"). A combination of sediment and erosion control measures is required to achieve maximum pollutant removal.

a. **Sediment Basins.**

i. For common drainage locations that serve an area with ten (10) or more acres disturbed at one time, a temporary (or permanent) sediment basin that provides storage for a calculated volume of runoff from a 2-year, 24-hour storm event from each disturbed acre drained, or equivalent control measures, shall be provided where attainable until final stabilization of the site. Where no such calculation has been performed, a temporary (or permanent) sediment basin providing 3,600 cubic feet of storage per acre drained, or equivalent control measures, shall be provided where attainable until final stabilization of the site. When computing the number of acres draining into a common location it is not necessary to include flows from offsite areas and flows from onsite areas that are either undisturbed or have undergone final stabilization where such flows are diverted around both the disturbed area and the sediment basin. In determining whether installing a sediment basin is attainable, the permittee may consider factors such as site soils, slope, available area on site, etc. In any event, the permittee must consider public safety, especially as it relates to children, as a design factor for the sediment basin and alternative sediment controls shall be used where site limitations would preclude a safe design.

ii. For drainage locations that serve ten (10) or more disturbed acres at one time and where a temporary sediment basin or equivalent controls is not attainable, smaller sediment basins and/or sediment traps should be used. Where neither the sediment basin nor equivalent controls are attainable due to site limitations, silt fences, vegetative buffer strips, or equivalent sediment controls are required for all down slope boundaries of the construction area and for those side slope boundaries deemed appropriate as dictated by individual site conditions.

iii. For drainage locations serving less than ten (10) acres, smaller sediment basins and/or sediment traps should be used. At a minimum, silt fences, vegetative buffer strips, or equivalent sediment controls are required for all down slope boundaries (and for those side slope boundaries deemed appropriate as dictated by individual site conditions) of the construction area unless a sediment basin providing storage for a calculated volume of runoff from a 2-year, 24-hour storm event or 3,600 cubic feet of storage per acre drained is provided.

b. **Velocity Dissipation Devices.**

Velocity dissipation devices must be placed at discharge locations and along the length of any outfall channel to provide a non-erosive flow velocity from the structure to a water course so that the natural physical and biological characteristics and functions are maintained and protected (e.g. no significant changes in the hydrological regime of the receiving water).

7. **Post-Construction Stormwater Management.** The SWPPP must include a description of stormwater management measures that will be installed during the construction process to control pollutants in stormwater discharges that will occur after construction operations have been completed. Structural measures should be placed on upland soils to the degree attainable. Such measures must be designed and installed consistent with applicable local or state stormwater management requirements.

   Such practices may include but are not limited to: stormwater detention structures (including wet ponds); stormwater retention structures; flow attenuation by use of open vegetated swales and natural depressions; infiltration of runoff onsite; and sequential systems (which combine several practices). The SWPPP shall include an explanation of the technical basis used to select the practices to control pollution where flows exceed predevelopment levels.

   Note: The installation of these devices may also require a separate permit under section 404 of the CWA. Permittees are only responsible for the installation and maintenance of stormwater management measures prior to final stabilization of the site, and are not responsible for maintenance after stormwater discharges associated with construction activity have been eliminated from the site. However, post construction stormwater BMPs that discharge pollutants from point sources once construction is completed may, in themselves, need authorization under a separate NPDES permit.

8. **Non-Storm Water Discharge Maintenance.** The SWPPP must identify all allowable sources of non-stormwater discharges listed in Part I.D.2 of this permit, except for flows from fire fighting activities. Non-stormwater discharges are to be eliminated or reduced to extent possible. The operator must implement appropriate pollution prevention measures to minimize pollutants in any non-storm water component(s) of the discharge and must describe those measures in the SWPPP. Except if used in emergency firefighting, superchlorinated wastewaters must be held on-site until the chlorine dissipates, or otherwise dechlorinated prior to discharge.

9. Other Controls. The SWPPP must describe:

   a. Measures to prevent the discharge of solid materials, including building

materials, to WOUS, except as authorized by a permit issued under section 404 of the CWA;

b. Measures to minimize off-site vehicle tracking of sediments, to the extent practicable, and the generation of on-site dust;

c. Measures to sufficiently stabilize soil at culvert locations to prevent the formation of rills and gullies during construction;

d. A description of construction and waste materials expected to be stored on-site with updates as appropriate. The SWPPP shall also include a description of controls to reduce pollutants from these materials including storage practices to minimize exposure of the materials to stormwater, and spill prevention and response; and

e. A description of pollutant sources from areas other than construction (including stormwater discharges from dedicated asphalt plants and dedicated concrete plants), and a description of controls and measures that will be implemented at those sites to minimize pollutant discharges.

10. Applicable Federal, State, or Local Programs.

a. The SWPPP shall be consistent with applicable State, and/or local waste disposal, sanitary sewer or septic system regulations to the extent these are located within the permitted area;

b. When discharges to water quality-impaired waters that are contained in the current 303(d) Impaired Water Body listing issued by the Nevada Division of Environmental Protection, Bureau of Water Quality Planning, the permittee must investigate whether discharges from the permittee's site will contribute significantly to any 303(d) listing, and when the permittee discharges into a water body with an established Total Maximum Daily Load ("TMDL"), the permittee shall comply with all applicable TMDL requirements. This information can be found on the following NDEP website: http://ndep.nv.gov/bwqp/standard.htm.

When a TMDL has not been established as described in paragraph above, the permittee must include a section in the SWPPP describing the condition for which the water has been listed. The SWPPP must also include a demonstration that the BMPs that are selected for implementation will be sufficient to ensure that the discharges will not cause or contribute to an exceedance of an applicable State water quality standard;

c. Permittees that discharge storm water associated with construction

activities must ensure their SWPPP is consistent with requirements specified in applicable sediment and erosion site plans or site permits, or stormwater management site plans or site permits approved by State or local officials;

d. SWPPPs must be updated as necessary to remain consistent with any changes applicable to protecting surface water resources in sediment and erosion site plans or site permits, or stormwater management site plans or site permits approved by State or local officials for which the permittee receives written notice; and

e. The SWPP may incorporate by reference the appropriate elements of plans required by other agencies. A copy of the requirements incorporated by reference shall be included as an attachment to the SWPPP.

11. Maintenance of BMPs

a. All erosion and sediment control measures and other protective measures identified in the SWPPP must be maintained in effective operating condition. If site inspections required by Part III.A.12 identify BMPs that are not operating effectively or if the capacity has been reduced by 50%, maintenance shall be performed before the next anticipated storm event, or as soon as possible if maintenance before the next anticipated storm event is not practicable;

b. If existing BMPs need to be modified or additional BMPs are necessary, implementation must be completed before the next anticipated storm event. If implementation prior to the next anticipated storm event is impracticable, maintenance must be scheduled and accomplished as soon as practicable; and

c. The permittee must remove sediment from sediment traps or sedimentation ponds when design capacity has been reduced by 50%.

12. Construction Site Inspections

a. **Routine Inspection Schedule.** The permittee must ensure routine inspections are performed at the site to ensure the BMPs are functional and that the SWPPP is being properly implemented. The permittee must have the site inspected at least once every seven (7) calendar days and within 24 hours of the end of a storm event of 0.5 inches or greater;

b. **Inspection Waiver.** Permittees are eligible for a waiver of weekly inspection requirements until one month before thawing conditions are expected to result in a discharge if all of the following requirements are

met:

i. The project is located in an area where frozen conditions are anticipated to continue for extended periods of time (i.e., more than one month);
ii. Land disturbance activities have been suspended; and
iii. The beginning and ending dates of the waiver period are documented in the SWPPP.

c. **Inspectors.** Qualified personnel (provided by the permittee or cooperatively by multiple permittees) shall inspect disturbed areas of the construction site that have not been finally stabilized, areas used for storage of materials that are exposed to precipitation, structural control measures, and locations where vehicles enter or exit the site. "Qualified personnel" means a person knowledgeable in the principles and practice of erosion and sediment controls and who possesses the skills to assess conditions at the site that could impact stormwater quality and the effectiveness of the BMPs selected to control the quality of the stormwater discharges;

d. **Scope of Inspections.** Inspections must include all areas of the site disturbed by construction activity and areas used for storage of materials that are exposed to precipitation. Inspectors must look for evidence of, or the potential for, pollutants entering the drainage system. Sediment and erosion control measures identified in the SWPPP shall be observed to ensure that they are operating correctly. Where discharge locations or points are accessible, they shall be inspected to ascertain whether sediment and erosion control measures are effective in preventing significant impacts to receiving waters. Where discharge locations are inaccessible, nearby downstream locations shall be inspected to the extent that such inspections are practicable. Locations where vehicles enter or exit the site shall be inspected for evidence of offsite sediment tracking. All BMPs and areas inspected and their condition must be documented in the inspection report;

e. **Inspection Report.** An inspection report summarizing the scope of the inspection, name(s) and qualifications of personnel making the inspection, the date(s) of the inspection, and major observations relating to the implementation of the SWPPP shall be made. Major observations should include the location(s) of discharges of sediment or other pollutants from the site; location(s) of BMPs that need to be maintained; location(s) of BMPs that failed to operate as designed or proved inadequate for a particular location; and location(s) where additional BMPs are needed that did not exist at the time of inspection;

f. **Maintaining Inspection Records.** The permittee must ensure that the inspection reports and record of any follow-up actions taken in accordance with Part III.A.12.e of this permit is retained as part of the SWPPP for at least three years from the date that permit coverage expires or the site is finally stabilized. Inspection reports shall identify any incidents of noncompliance with this permit. Where a report does not identify any incidents of noncompliance, the report shall contain a certification that the facility is in compliance with the SWPPP and this permit. The report shall be signed in accordance with Part V.B.1 of this permit;

g. **Follow-Up Actions.** Based on the results of the inspection, the SWPPP shall be modified as necessary (e.g., show additional controls on a map required by Part III.A.1.j and/or revise the description of controls required by Part III.A.2) to include additional or modified BMPs designed to correct problems identified. Revisions to the SWPPP shall be completed within seven (7) calendar days following the inspection. If existing BMPs need to be modified or if additional BMPs are necessary, implementation shall be completed within 7 days following receipt of the inspection results or prior to the next anticipated storm event, whenever practicable. If implementation of the BMPs before the next storm event is impracticable, the BMPs shall be implemented as soon as possible if implementation before the next anticipated storm event is not practicable.

13. **Maintaining an Updated SWPPP.** The operator must amend the SWPPP within seven (7) business days whenever:

a. There is a change in design, construction, operation, or maintenance at the construction site that has a significant effect on the discharge of pollutants to WOUS that has not been previously addressed in the SWPPP; or

b. During inspections, monitoring if required, or investigations by the permittee or by local, state, MS4, or federal officials, it is determined the discharges are causing or contributing to water quality exceedances or the SWPPP is ineffective in eliminating or significantly minimizing pollutants in stormwater discharges from the construction site.; or

c. If implementation of the BMPs required by the SWPPP revision before the next storm event is impracticable, the BMPs shall be implemented as soon as possible if implementation of the BMP before the next anticipated storm event is not practicable.

14. **Deficiencies in the SWPPP.** NDEP may notify the permittee at any time that the SWPPP does not meet one or more requirements of this section. The notification must identify the provisions of this permit that are not being met and parts of the

SWPPP that require modification. Within fifteen (15) days of receipt of the notification by NDEP, the permittee must make the required changes to the SWPPP and submit to NDEP a written certification that the requested changes have been made. NDEP may request a copy of the SWPPP to confirm that all deficiencies have been adequately addressed. NDEP may also take appropriate enforcement action for the period of time the permittee was operating under a plan that did not meet the minimum requirements of this permit.

PART IV. NOTICE OF TERMINATION

A. **Notice of Termination.** A Notice of Termination ("NOT") must be submitted upon completion of the project. To terminate permit coverage, an NOT, as approved by NDEP, shall be submitted when final stabilization has been achieved or when the project has been transferred to another permittee.

B. **Information Required.** The following minimum information is required on an NOT:

1. The stormwater general permit number;
2. Facility operator information, including the name, address, city, state, zip code and phone number;
3. Facility/site location information including the name, address, city, state, zip code, phone number and at least one APN associated with the project; and
4. A certification statement signed and dated by the permittee. The certification statement is:

> ''I certify under penalty of law that all storm water discharges associated with construction activity from the identified facility that was authorized by a general permit have been eliminated or that I am no longer the operator of the facility or construction site. I understand that by submitting this notice of termination, I am no longer authorized to discharge stormwater associated with construction activity under this general permit, and that discharging pollutants in stormwater associated with construction activity to waters of the United States is unlawful under the Clean Water Act where the discharge is not authorized by a NPDES permit. I also understand that the submittal of this Notice of Termination does not release an operator from liability for any violations of this permit or the Clean Water Act.''
>
> *Note: For construction projects with more than one permittee and/or operator, the permittee need only make this certification for those portions of the construction site where the permittee was authorized under this permit and not for areas where the permittee was not an operator.*

C. **Final Stabilization.** Final Stabilization means that either:

1. All soil disturbing activities at the site have been completed and a uniform (e.g., evenly distributed, without large bare areas) perennial vegetative cover with a density of 70% of the native background vegetative cover for the area has been established on all unpaved areas and areas not covered by permanent structures, or equivalent permanent stabilization measures have been employed. In such parts of the country, background native vegetation will cover less than 100% of the ground. Establishing at least 70% of the natural cover of the native vegetation meets the vegetative cover criteria for final stabilization (e.g., if the native vegetation covers 50% of the ground, 70% of 50% would require 35% total cover for final stabilization; on a beach with no natural vegetation, no stabilization is required); or

   For individual lots in residential construction by either:

   a. The homebuilder completing final stabilization as specified above, or
   b. The homebuilder establishing temporary stabilization including perimeter controls for an individual lot prior to occupation of the home by the homeowner and informing the homeowner of the need for, and benefits of, final stabilization; or

2. For construction projects on land used for agricultural purposes (e.g., pipelines across crop or range land), final stabilization may be accomplished by returning the disturbed land to its preconstruction agricultural use. Areas disturbed that were not previously used for agricultural activities, such as buffer strips immediately adjacent to WOUS, and areas which are not being returned to their preconstruction agricultural use must meet the final stabilization criteria listed above.

PART V. STANDARD PERMIT CONDITIONS

A. Operating Requirements

1. **Proper Operation and Maintenance.** The permittee shall implement all BMPs used to comply with this permit and maintain them in good working order;

2. **Removed Substances.** Solids and other pollutants removed in the course of treatment or control of stormwater shall be disposed of in accordance with applicable laws, regulations, codes, and ordinances;

3. **Water Quality Standards.** There shall be no discharge of substances that cause or contribute to a violation of the water quality standards of the State of Nevada;

4. **Sampling and Analysis.** If any samples or measurements are taken pursuant to this permit they shall be representative of the volume and nature of the discharge. Laboratory analyses shall be performed by a State of Nevada certified laboratory. Results from this lab must be provided to NDEP.

5. **Test Procedures.** Test procedures for analyses of pollutants shall conform to regulations (40 CFR § 136) published pursuant to Section 304(h) of the Act, under which such procedures may be required, unless other procedures are approved by NDEP;

6. **Recording the Results.** If any measurement or sample is taken pursuant to this permit, the permittee shall record the following information:

    a. The exact place, date, and time of sampling;
    b. The dates the analyses were performed;
    c. The person(s) who performed the analyses;
    d. The analytical techniques or methods used; and
    e. The results of all required analyses.

7. **Adverse Impact.** The permittee shall take all reasonable steps to minimize any adverse impacts to receiving waters from any unauthorized discharge including monitoring as necessary to determine the nature and impact of the unauthorized discharge.

B. Administrative Requirements

1. **Signature Requirements**

    a. **Notices of Intent**
    All NOIs shall be signed as follows:

        i. **For a corporation.** By a responsible corporate officer. For the purpose of this section, a responsible corporate officer means:

            (1) A president, secretary, treasurer, or vice president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision making functions for the corporation, or
            (2) The manager of one or more manufacturing, production, or operating facilities, provided the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other

comprehensive measures to assure long-term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

ii. **For a partnership or sole proprietorship.** By a general partner or the proprietor, respectively; or

iii. **For a municipality, state, federal, or other public agency.** By either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a Federal agency includes:

(1) The chief executive officer of the agency, or
(2) A senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency.

b. **Duly Authorized Representative.** All SWPPPs and any other information required by this permit or requested by NDEP shall be signed by a person described in Part V.B.1, or by a duly authorized representative of that person. A person is a duly authorized representative only if:

i. The authorization is made in writing by a person described in Part V.B.1;
ii. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position); and
iii. The written authorization is submitted to NDEP.

c. **Changes to Authorization.** If an authorization in Part V.B.1 is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new written authorization satisfying the requirements of Part V.B.1.b must be submitted to NDEP prior to or together with any information signed by the new representative.

d. **Certification.** Any person signing a document in Part V.B shall make the following certification.

> ‘‘I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. I also confirm that a stormwater pollution prevention plan (SWPPP) has been completed, will be maintained at the project site from the start of construction activities, and that the SWPPP will be compliant with any applicable local sediment and erosion control plans. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines for knowing violations.”

2. **Records Retention.** All records and information resulting from activities performed pursuant to this permit shall be retained for a minimum of three years; or longer if required by NDEP.

3. **Availability of Reports.** Except for data determined to be confidential under NRS 445A.665, all reports prepared in accordance with the terms of this permit shall be available for public inspection at NDEP’s office. Knowingly making any false statement on any such report may result in the imposition of criminal penalties as provided for in NRS 445A.710.

4. **Continuation of Coverage.** In accordance with NAC 445A.241, this permit shall remain in effect until reissued, and existing permittees shall be included in the reissued permit if a new NOI is submitted prior to the expiration date of this permit. A filing fee is not required for this new submittal.

5. **Transfer of Ownership or Control.** If control or ownership of the construction project changes, the permittee shall notify the succeeding owner or controller of the existence of this permit by letter, a copy of which shall be forwarded to NDEP. To transfer permit coverage, the new owner or controller must submit a written request to NDEP. All transfer of permits shall be approved by NDEP.

6. **Annual Fee.** The permittee shall remit an annual fee in accordance with NAC 445A.268 on or before July 1 every year. If the original submittal for this permit is done prior to July 1, the permittee shall resubmit a new annual fee on or before July 1 of that same year.

7. **Right of Entry.** The permittee shall allow NDEP's representatives upon the presentation of credentials:

    a. To enter upon the construction site or the permittee's premises where any records are kept under the terms and conditions of this permit; and
    b. At reasonable times, to have access to and copy any records kept under the terms and conditions of this permit; to inspect any monitoring equipment or monitoring method used pursuant to this permit; and to perform any necessary sampling to determine compliance with this permit or to sample any discharge.

8. **Penalty for Violation of Permit Conditions.** The permittee shall comply with all conditions of this permit. Any permit non-compliance constitutes a violation of the CWA and is grounds for enforcement action, permit termination, revocation and re-issuance, or modification, or denial of a permit renewal application. NRS 445A.675 provides that any person who violates a permit condition is subject to administrative and judicial sanctions as outlined in NRS 445A.690 through 445A.705.

9. **Furnishing False Information and Tampering with Monitoring Devices.** Any person who knowingly makes any false statement, representation, or certification in any application, record, report, plan or other document filed or required to be maintained by the provisions of NRS 445A.300 to 445A.730, inclusive, or by any permit, rule, regulation or order issued pursuant thereto, or who falsifies, tampers with or knowingly renders inaccurate any monitoring device or method required to be maintained under the provisions of NRS 445A.300 to 445A.730, inclusive, or by any permit, rule, regulation or order issued pursuant thereto, is guilty of a gross misdemeanor and shall be punished by a fine of not more than $10,000 or by imprisonment. This penalty is in addition to any other penalties, civil or criminal, provided pursuant to NRS 445A.300 to 445A.730, inclusive.

10. **Permit Modification, Suspension or Revocation.** After notice and opportunity for a hearing, this permit may be modified, suspended, or revoked in whole or in part during its term for cause including, but not limited to, the following:

    a. Violation of any terms or conditions of this permit;
    b. Obtaining this permit by misrepresentation or failure to disclose fully all relevant facts; or
    c. A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge.

11. **Liability.** Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or

penalties established pursuant to any applicable Federal, State or local laws, regulations, or ordinances.

12. **Property Rights.** The issuance of this permit does not convey any property rights, in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State or local laws or regulations.

13. **Severability.** The provisions of this permit are severable, and if any provision of this permit, or the application of any provisions of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

Appendix A – Definitions

Best management practices (``BMPs'') means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of ``Waters of the United States.'' BMPs also include treatment requirements, operating procedures, and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

Construction Activities - Construction activities include any clearing, grading and excavation activities that result in the disturbance of one (1) acre or more of total land area, or will disturb less than one (1) acre but are part of a larger common plan for development or sale that will ultimately disturb one (1) or more acres..

CWA - Clean Water Act (formerly referred to as the Federal Water Pollution Control Act or Federal Water Pollution Control Act Amendments of 1972) Public Law 92-500, as amended by Public Law 95-217, Public Law 95-576, Public Law 96-483 and Public Law 97-117, 33 U.S.C. 1251 et seq. CWA and regulations means the Clean Water Act (CWA) and applicable regulations promulgated thereunder. In the case of an approved State program, it includes State program requirements.

Industrial Activities means temporary concrete, asphalt and material plants which are dedicated to the permitted construction activity.

Large construction activity includes clearing, grading and excavation that results in the disturbance of five acres or more of total land area.

Small construction activity includes the disturbance of less than one acre of total land area that is part of a larger common plan of development or sale if the larger common plan will ultimately disturb equal to or greater than one and less than five acres. Small construction activity does not include routine maintenance that is performed to maintain the original line and grade, hydraulic capacity, or original purpose of the facility. NDEP may waive the otherwise applicable requirements in a general permit for a storm water discharge from construction activities that disturb less than five acres where the value of the rainfall erosivity factor (``R'' in the Revised Universal Soil Loss Equation) is less than five during the period of construction activity. The rainfall erosivity factor is determined in accordance with Chapter 2 of Agriculture Handbook Number 703, Predicting Soil Erosion by Water: A Guide to Conservation Planning with the Revised Universal Soil Loss Equation (RUSLE), pages 21-64, dated January 1997.

Stormwater means storm water runoff, snow melt runoff, and surface runoff and drainage.

Attachment 2

Revised Technical Specification

Section 09905

Section 09005
POLYURETHANE LINING AND COATING

PART 1-- GENERAL

1.1 THE REQUIREMENT

A. The Contractor is responsible for providing a polyurethane lining and coating system to all pipe, fittings, special pieces, field welds, concrete forebay and all related appurtenances furnished for the Project unless otherwise noted in the Drawings and Specifications.

B. Linings and/or coatings shall be applied at the pipe manufacturing facility, at a third party facility, and/or applied in the field. Contractor is strongly advised to consider atmospheric conditions during the application of any coatings and linings, particularly during the application of any field applied coatings.

C. Care shall be exercised to prevent moisture exposure during shipping, storage, mix and application.

D. Care shall be exercised to avoid freezing of the lining material during shipping and prior to application.

E. All coating and linings must be applied by a properly qualified, certified and experienced coating applicator(s) acceptable to the Engineer and in strict accordance with the manufacturers written application instructions.

1.2 REFERENCE SPECIFICATIONS, CODES, AND STANDARDS

A. American Water Works Association (AWWA)
   1. AWWA C216 Heat-shrinkable Cross-linked Polyolefin Coatings for the Exterior of Special Sections, Connections, and Fittings for Steel Water Pipelines.
   2. AWWA C222 Polyurethane Coatings for Interior and Exterior of Steel Water Pipe and Fittings.

B. NACE International (NACE)
   1. NACE SP-0188 Discontinuity (Holiday) Testing of Protective Coatings. SSPC-Solvent Cleaning Surface Preparation

C. Society for Protective Coatings (SSPC)
   1. SSPC-SP-2 Hand Tool Cleaning Surface Preparation SSPC-SP-3 Power Tool Cleaning Surface Preparation.
   2. SSPC-SP-5 White metal Abrasive Blast Surface Preparation.
   3. SSPC-SP-10 Near White Metal Abrasive Blast Surface Preparation.
   4. SSPC-SP-11 Power Tool Cleaning to Bare Metal.

D. ASTM International (ASTM)
   1. ASTM D16 Standard Terminology Relating to Paint, Varnish, Lacquer, and Related Products.

1.3 SUBMITTALS

A. General: Submittals shall be furnished in accordance with this specification, unless indicated otherwise below.

B. Submittals shall include the following information:

1. Coating manufacturer's data sheet for each product proposed, including Statements on the suitability of the material for the intended use.
2. Technical and performance information that demonstrate compliance with the system performance and material requirements.
3. Coating manufacturer's instructions and recommendations on surface preparation and application.
4. Colors available for each product (where applicable).
5. Compatibility of shop and field applied coatings (where applicable).
6. Material Safety Data Sheet for each product.

1.4 QUALITY CONTROL AND ASSURANCE, APPLICATOR EXPERIENCE

A. Quality Control. Contractor is required to perform all quality control inspection and testing as necessary at his cost to ensure conformance to the plans and specifications.

B. Quality Assurance. TMWA will provide full time quality assurance inspection and testing at TMWA's cost. QA testing and inspection does not relieve the Contractor of the necessity of meeting any of the requirements of the Contract Documents. Contractor is responsible for any TMWA costs related to retesting of any failed inspections and tests.

C. Applicator's Experience and Certification

1. Coating application personnel whom have direct product application responsibility (for both pipe and joints), shall be certified by the manufacturer and shall have at least 2 years of recent experience in applying the specified lining and coating in similar steel pipe coating projects.
2. The manufacturer certifications and qualifications of the application personnel shall be submitted to the Engineer for review and approval prior to any lining or coating work commencing.
3. Only those individuals approved by the Engineer will be allowed to apply the product

1.5 DEFINITIONS

A. DFT: Minimum Dry Film Thickness, without any negative tolerance.

1.6 ABBREVIATIONS

A. MDFT: Minimum Dry Film Thickness.

B. Mil: Thousandths of an Inch.

PART 2 -- PRODUCTS

2.1 GENERAL

A. Coating materials shall be standard products produced by recognized manufacturers who are regularly engaged in production of such materials for essentially identical service conditions. Products must have five (5) years of documented case histories on similar large diameter steel penstock coating projects.

B. Pipeline coating materials shall be the products of a single manufacturer, unless otherwise noted in this specification. Product substitutions during the project will not be considered or permitted.

C. Coating applicator shall provide an approved monitoring system that constantly records pipe and coating conditions during the coating application. Recorded monitoring parameters shall include ambient temperature, relative humidity, dew point, pipe temperature, surface profile, and other parameters applicable to the specific coating system applied.

D. Substitute or "Or-Equal" Products for Coating Systems

1. Substitutions; Substitutions to polyurethane will not be accepted.
2. Or Equals; The Contractor shall furnish satisfactory documentation from the manufacturer of the proposed "or-equal" product that the material meets AWWA C222 and all of the requirements of these specifications. Any deviations shall be clearly identified in writing.

2.2 POLYURETHANE SYSTEM

A. General: Pipe, fittings, special pieces and related appurtenances shall all be fully lined and coated with polyurethane complying with AWWA C222 - Polyurethane Coatings for the Interior and Exterior of Steel Water Pipe and Fittings. The liner shall be certified under NSF Standard 61.

B. Material: The coating material shall be a two-component, fast set, Type V polyurethane according to ASTM D 16 - Standard Terminology Relating to Paint, Varnish, Lacquer, and Related Products. Solids content shall be no less than 100 percent by volume.

1. Surface Preparation-Steel: SSPC-SP10, Near White Metal blast, 3.0-mil angular profile, minimum.
2. Surface Preparation-Concrete: Equivalent to medium grit sandpaper, in accordance with ICRI minimum CSP 4.

C. Product acceptance is contingent upon:

1. Submission of an independent testing report documenting conformance to the coating performance criteria specified herein.
2. Verification that no significant change in product formulation has occurred since independent test was performed.

D. Coating Performance Testing and Report

1. Coating manufacturer via the Contractor shall submit to the ENGINEER for approval, test reports documenting conformance to the specified performance criteria using prepared samples and coating materials conforming to the following general requirements:
   a. Polyurethane coating material tested shall have been manufactured within 30 days of test sample preparation.
   b. Coating material to have a minimum of five years prior pipeline coating application history.
   c. Extended polyurethane coatings will not be acceptable.
2. Submission of incomplete reports, use of test procedures or methods other than those specified, or preparation of samples with coating material other than those listed will result in rejection of the coating.
3. Reports shall be submitted for review and approval along with current product data sheets and MSDS sheets for Parts A and B.
4. Test Sample Preparation:
   a. Failure to fully conform to the preparation requirements will result in rejection of the submitted coating material.
   b. Sample preparation completed by the coating manufacturer shall be fully documented and reported to the testing agency by the manufacturer.
   c. All coating test samples shall be prepared in conformance with the following general requirements.
   d. Sample Surface preparation:
      1) Method: Abrasive blast, steel grit or green diamond, SSPC-SP5, white metal.

      2) Profile: 3.00 mils minimum, angular profile, measured and recorded using surface profilometer or surface replica tape.
   e. Coating Application:
      1) Method: Spray film in accordance with manufacturer's written shop application requirements. Thickness: 30 to 50 mils.
      2) Cure: Air cure only, oven or other accelerated cures will not be acceptable.
      3) Form: Sheet, steel panel, or steel pipe as required for the test procedure.
   f. Sample Quantity: Provide a minimum of three samples for each test performed or as required by the ASTM test standards, whichever is more stringent.

5. Coating Tests and Criteria:

   a. Testing shall be performed by a certified independent laboratory testing agency with a minimum five years' experience in the performance of ASTM test procedures on coating systems.
   b. All testing shall be at room temperature, unless specifically required otherwise by the ASTM test procedure.
   c. Material property test requirements are listed in the table on the following page:

Property	Requirement
Permeance	No more than 0.10 inch-pound using Water Procedure BW (App. X1), when tested according to ASTM E96
Impact Resistance	No less than 125 inch-pounds when tested according to ASTM G14 for 40 mil thickness
Abrasion Resistance	Less than 50 mg weight loss per 1000 revolutions of a CS-17 wheel, 1 kg weight, when tested according to ASTM D4060
Electrochemical Impedance	Log Z ≥ 10.0; 60 day immersion in 5% NaCl electrolyte solution @ 100°F.

6. Reporting:

    a. As required by the ASTM test method and the following additional information:
        1) Sample panel preparation date and identification
        2) Surface preparation method and abrasive
        3) Surface preparation profile
        4) Coating lot and date of manufacture
        5) Application spray gun and equipment used
        6) Application temperatures of coating materials and material temperature at the gun, ambient temperature, and panel surface temperature.
    b. Show all calculations as required by the ASTM test method.
    c. Submit report in PDF format.

E. Required Thicknesses

1. Interior lining of pipe, fittings and appurtenances: 40 mils DFT, minimum
2. Exterior coating of pipe, fittings and appurtenances: 25 mils DFT, minimum

F. Cutbacks For Field Welds

1. Provide a 3- inch minimum band of substrate on the internal and external joints which shall be left uncoated. This band shall receive the same surface preparation as the rest of the pipe. Additional cut back may be required for field weld joint testing.

G. Non Welded Joints

1. If mechanical couplings or gaskets are used to connect the pipe sections together, the pipe shall be lined and coated to its ends, including sealing area, with no cut back.

H. Manufacturers, or equal

1. Lining: LifeLast Inc. DuraShield 210-61 NSF, or approved equal.
2. Coating: LifeLast Inc. DuraShield 210-61, or approved equal.

2.3 INTERIOR FIELD JOINT COATING

A. Surface preparation shall be per the joint lining manufacturer's recommendations.

B. Manufacturers, or equal

1. Spray Application: LifeLast Inc. DuraShield 210-61 NSF,
2. Hand Application: LifeLast Inc. DuraShield 310-61 JARS (Joint and Repair System).

2.4 EXTERIOR FIELD JOINT COATING

A. Buried: All field joints shall be coated with heat shrink sleeves per AWWA C216.

B. Above Ground:

1. Manufacturers, or equal
   a. LifeLast Inc. DuraShield 210, DuraShield 310, DuraShield 310 JARS (Joint and Repair System).

2.5 REPAIR OF COATINGS AND LININGS

A. General

1. Coating or lining repair materials shall be as recommended by the coating manufacturer and shall be compatible with the coating or lining system.

B. Field Repair Coating Materials

1. Polyurethane Coating or Lining
   a. Polyurethane coating or lining system repair shall be in accordance with the coating manufacturer's written procedures.
2. Curing of Field Applied Coatings
   a. All field-applied coatings shall be completely cured prior to installation.

2.6 EXPOSED ABOVE GRADE POLYURETHANE COATED STEEL PIPE

A. Exposed above grade steel pipe shall receive an additional aliphatic top coat (4-6 mils) over the polyurethane coating; color selected by Owner.

PART 3 -- EXECUTION

3.1 WORKMANSHIP

A. Skilled manufacturer, trained craftsmen and experienced supervision shall be used to perform the application. The individual applicators must be certified by the manufacturer, experienced with the application of the product being used in similar applications and approved by the Engineer

3.2 STORAGE AND MIXING OF MATERIALS

A. Manufacturer's Recommendations: Unless otherwise indicated, the coating manufacturer's printed recommendations and instructions for thinning, mixing, handling, applying, and protecting its coating materials, for preparation of surfaces for coating, and for all other procedures relative to coating shall be strictly observed.

B. Materials shall be used within the manufacturer's recommended shelf life.

C. Storage and Mixing: Materials shall be stored and mixed per the manufacturers recommendations.

3.3 SURFACE PREPARATION

A. Pipe shall be clean and free of contaminants. If not the pipe surfaces shall be cleaned in accordance with SSPC-SP1, to remove oil, grease, and other soluble contaminants. No residue shall remain on the pipe. Remove burrs, weld splatter and gouges.

B. Prepare the metal surface to achieve a metal finish and cleanliness in accordance with SSPC-SP10 to an angular profile of 3.00-mil minimum measured and recorded using surface profilometer or surface replica tape.

C. Pipe temperatures shall be at least 5 degrees F warmer than the dew point temperature and within the coating manufacturers recommended temperature range per the technical data sheet. Pipe shall be warmed if necessary.

D. Pipe shall not be allowed to flash rust before coating is applied.

E. Concrete surfaces shall be abrasively blasted to achieve a surface profile texture similar to medium grit sandpaper, in accordance with ICRI minimum CSP 4.

3.4 APPLICATION

A. Apply the coating in strict conformance to the manufacturer's recommendations.

B. Recoating shall be performed in strict conformance to the manufacturer's recommendations.

3.5 TESTING

A. The Contractor shall perform his own quality control (QC) testing to ensure that all the requirements of the specifications are being met.

B. TMWA will perform full time quality assurance testing and inspection during all surface preparation and coating operations. Contractor is responsible for providing a complete coating and lining schedule and coordinating the required inspections with TMWA a minimum of 48 hours in advance of the work commencing. The Contractor will be responsible for any TMWA costs incurred as a result of the Contractor’s failure to provide timely (24 hour notice) notification of any schedule changes and for required retesting of any failed tests or inspections.

C. All testing shall be per AWWA C222 unless modified herein and includes the following;

1. Surface Preparation. Depth of profile, color, steel temperature, ambient temperature, humidity, and dew point.

2. Coating mix ratio verification: At the request of the QA inspector, provide samples of coating mix ratio to verify the mix ratio is compliant.

3. Cure Test

4. Coating Appearance

5. Dry Film Thickness: The SSPC-PA2 DFT measurement standard may be utilized as a guideline, however, based on the findings, the frequency of measurement is to be determined solely at the discretion of the QA inspector.

6. Electrical Continuity (Holiday Testing): To be performed at 100 volts per minimum mil thickness measured.

7. Adhesion Testing

    a. Polyurethane coating adhesion to steel substrates shall be tested using Delfesko Positest AT-A automatic pneumatic pull off tester and 14mm dollies.
    b. Adhesion testing records shall include pipe identification, surface tested (interior or exterior), surface temperature, coating thickness, tensile force applied, mode of failure, and percentage of substrate failure relative of dolly surface.
    c. Dollies for adhesion testing shall be glued to the coating surface and allowed to cure for a minimum of 12 hours. Because of high cohesive strength, polyurethane coatings shall be scored around the dolly prior to conducting the adhesion test. Extreme care shall be taken when scoring around the dollies.
    d. Failure shall be by adhesive and cohesive failure only. Adhesion failure is defined as separation of the coating from the steel substrate. Cohesive failure is defined as failure within the coating, resulting in coating remaining both on the steel substrate and dolly.
    e. Partial adhesion and glue failures will be retested if the adhesion failure is less than 50 percent relative of the dolly surface area and the applied tension was less than the adhesion criterion. Pipes that have partial adhesion failures greater than 50 percent and less than the required adhesion will be rejected as a substrate adhesion failure.
    f. Adhesion tests shall be terminated once 1,500 psi is reached and considered satisfactory.

3.6 FIELD INSTALLATION

A. Pipe shall be handled at all times to minimize damage to the lining and coating. Damaged lining and coating shall be repaired.

B. Repair of Field Welded Joints and Damaged Areas.

1. Weld sparks and splatter shall not be allowed to damage existing lining or coating.
2. After welding, repair the weld holdback areas and defects as recommended by the manufacturer.
3. Test the pipe after welding for holidays per NACE SP-0188. Mark holidays and repair per the manufacturers recommendations.
4. All holidays shall be re-tested until passing results are achieved.
5. Use only material recommended by the manufacturer for repair. This recommendation will take into consideration pipe diameter and quantity of joints.

3.7 REPAIR OF COATING AND LININGS

A. General

1. Areas where holidays are detected or coating is visually damaged, such as blisters, bubbles, cuts or other defects shall be repaired.
2. All identified holidays/defects shall be scarified and back-masked, crisp and square, to provide a minimum scarification perimeter reveal of $1/16^{th}$ inch post-removal of tape.
3. The intent of the aforementioned masking is to prevent the application of coatings onto areas in which the recoat window has expired. The specified coating should be terminated at contract specified thickness as opposed to feathering.
4. The repair area is to be safety solvent wiped immediately prior to the application of repair coating.

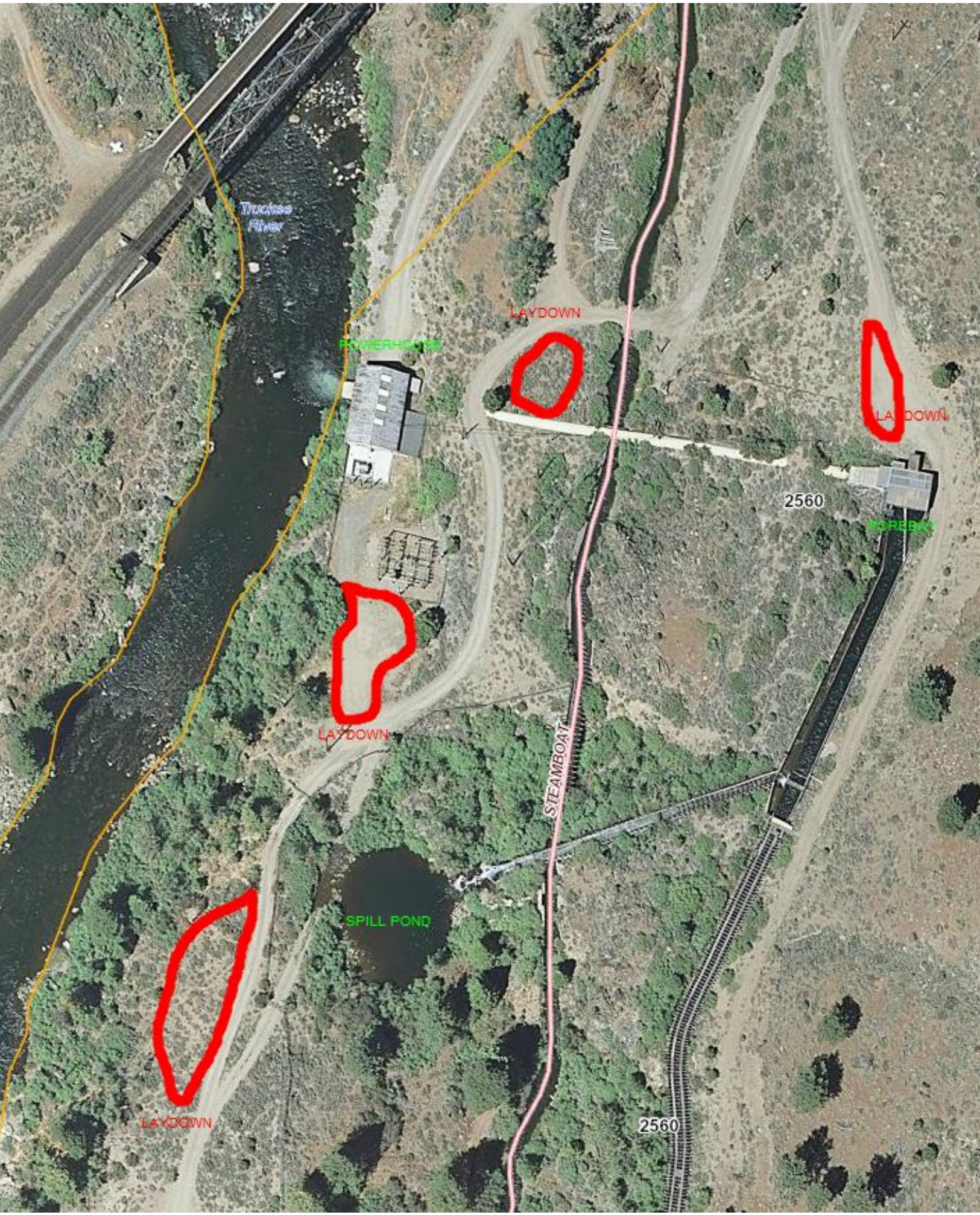
B. Polyurethane Coating or Lining Repairs

1. General
   a. Complete coating repairs in accordance with the coating manufacturer's written instructions and these Specifications, whichever is stricter.

END OF SECTION

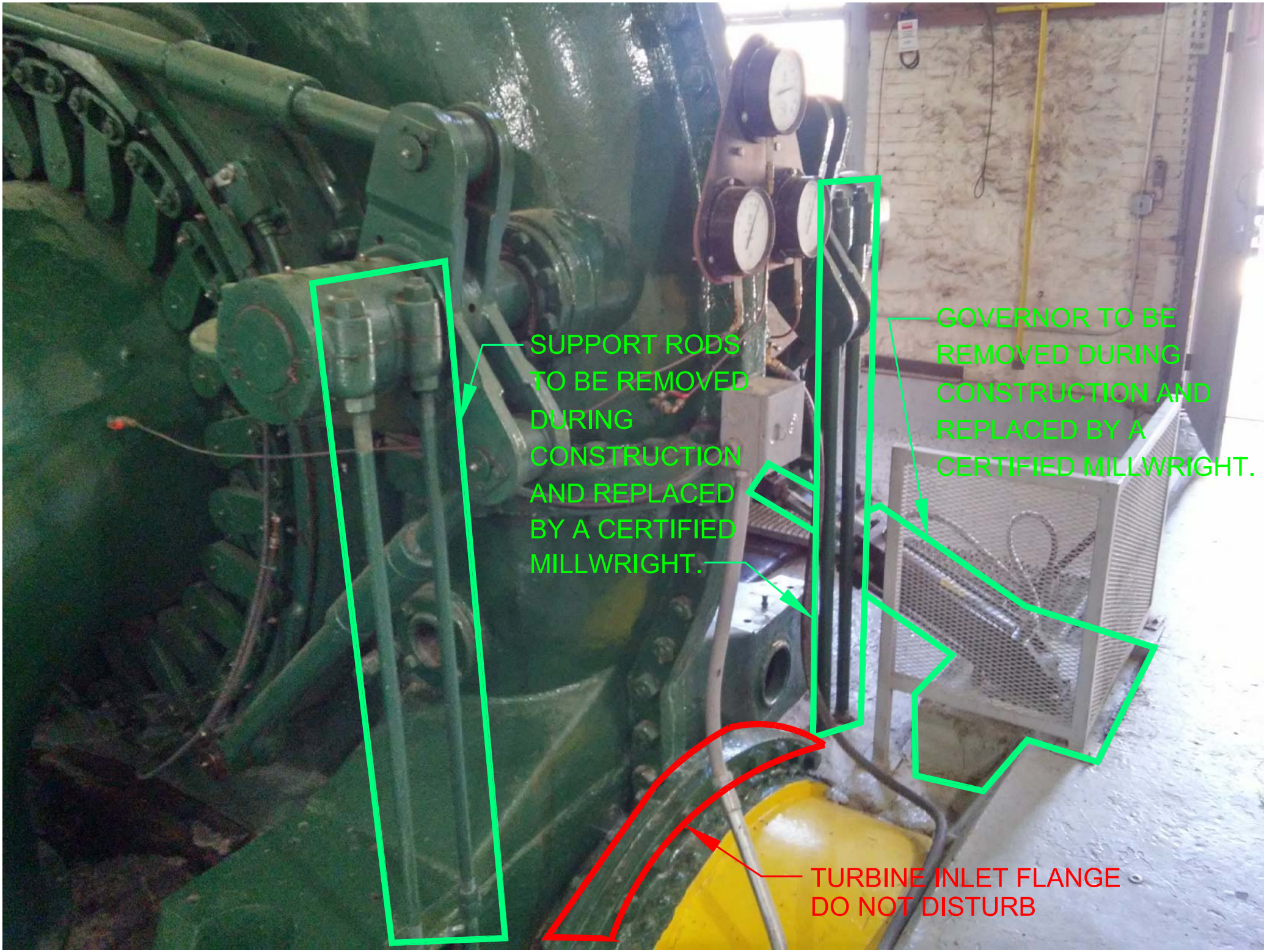
Attachment 3

Suggested Laydown Areas


Truckee River
LAYDOWN
POWERHOUSE
LAYDOWN
2560
FOREBAY
LAYDOWN
STEAMBOAT
SPILL POND
LAYDOWN
2560

Attachment 4

Critical Turbine Features


SUPPORT RODS TO BE REMOVED DURING CONSTRUCTION AND REPLACED BY A CERTIFIED MILLWRIGHT.
GOVERNOR TO BE REMOVED DURING CONSTRUCTION AND REPLACED BY A CERTIFIED MILLWRIGHT.
TURBINE INLET FLANGE DO NOT DISTURB