

Water Supply Reserve Fund – Grant and Loan Program
Water Activity Summary Sheet
March 21-22, 2018
Agenda Item 25(a)

Applicant & Grantee: Redlands Water and Power Company

Water Activity Name: Pump Plant Modernization Feasibility Study

Water Activity Purpose: M&I/Agricultural/Hydropower Generation

County: Mesa

Drainage Basin: Gunnison

Water Source: Gunnison River

Amount Requested: \$25,500 Gunnison Basin Account
\$37,500 Statewide Account
\$63,000 Total Request

Matching Funds: Applicant Match (cash & in-kind) = \$12,000

- 32% of the Statewide Account request (meets 10% min)

Basin Account Match = \$25,500

- 40% of the Statewide Account request (meets 10% min)

Total Match (Applicant & Basin Account) = \$37,500

- 100% of the Statewide Account (meets 50% min)

Staff Recommendation:
Staff recommends approval of up to \$25,500 from the Gunnison Basin Account; and \$37,500 from the Statewide Account to help fund the project titled: Pump Plant Modernization Feasibility Study.

Water Activity Summary: WSRF grant funds, if approved, will assist The Redlands Water and Power Company (RWPC) to complete a feasibility study to modernize their Pump Station No. 1 pumping facility. RWPC intends to complete a comprehensive alternatives analysis and feasibility study in order to initiate a design build project. Construction of the Pump Station began in 1917 and it is still in use today. The maximum output is 65 cfs. The four electric horizontal centrifugal pumps are located in the pump pit allowing for positive suction head. There is one vertical turbine-regulating pump located outside the pump house in the canal prism. The pump house is in need of extensive upgrade and modification and the electrical switchgear and power-lines need replacement to meet National Electrical Code (NEC) standards.

RWPC diverts about 610,000 ac-ft of water each year from the Gunnison River near Grand Junction, Colorado at flowrates between 750 and 950 cfs under 3 separate water rights. The majority of the diverted water is used for hydropower generation that is then used to power the pumps during the irrigation season. Excess power is sold to XCEL Energy. RWPC serves approximately 1,100 shareholders and about 4,500 acres in the Redlands area with mostly open canals.

Discussion: As pointed out in the accompanying application, this project assists the GBRT in meeting Goals 3, 5, 7 and 8 of the Gunnison Basin Implementation Plan.

In addition, this effort helps the state achieve several of the Measurable Objectives of Colorado's Water Plan, such as meeting the Supply-Demand Gap, Conservation, and Agricultural needs.

Issues/Additional Needs: No issues or additional needs have been identified.

Eligibility Requirements: The application meets requirements of all eligibility components: General Eligibility, Entity Eligibility, Water Activity Eligibility, and Eligibility Based on Match Requirements.

Evaluation Criteria: This activity has undergone review and evaluation and staff has determined that it satisfies the Evaluation Criteria. Please refer to Basin Roundtable Chair's Recommendation Letter and the WSRF Grant Application for applicant's detailed response.

Funding Summary/Matching Funds:

Funding Source	<u>Cash</u>	<u>In-kind</u>	<u>Total</u>	<u>Status</u>
Redlands Water and Power Company	\$6,000	\$6,000	\$12,000	Secured
WSRF Gunnison Basin Account	\$25,500	n/a	\$25,500	Secured
Sub-total	\$31,500	\$6,000	\$37,500	
WSRF Statewide Account	\$37,500	n/a	\$37,500	
Total Project Costs	\$69,000	\$6,000	\$75,000	

CWCB Project Manager: Craig Godbout

The Gunnison Basin Roundtable
501 Palmer Street
Delta, CO 81416

January 17, 2018

Mr. Craig Godbout
Water Supply Management Section
COLORADO WATER CONSERVATION BOARD
1313 Sherman St., Room 718
Denver, CO 80203

Re: WSRF Grant Request: Pump Plant Modernization Feasibility Study

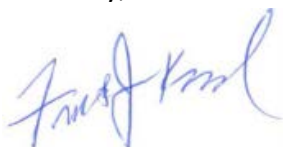
Dear Mr. Godbout:

This letter is presented to advise you that the grant application submitted by the Redlands Water and Power Company for \$25,500 from Basin Account funds and \$37,500 from Statewide Account Funds from the Water Supply Reserve Fund for the Pump Plant Modernization Feasibility Study was reviewed by the Gunnison Basin Roundtable and its Project Screening Committee. The request for funding was approved by a unanimous vote of the Gunnison Basin Roundtable during our meeting on December 4, 2017.

This water activity meets the provisions of Section 37-75-104(2), Colorado Revised Statutes. The requirements/language from the statute is provided in Part 3 of the Criteria and Guidelines. In addition, this project helps achieve Goals 1, 2,3 and 8 of the Gunnison Basin Implementation Plan.

Thank you for your support of this grant application.

Sincerely,



Frank J. Kugel
Gunnison Basin Roundtable

cc: Kathleen Curry (email)
Tom Alvey (email)



Last Update: May 19, 2017

Colorado Water Conservation Board

Water Supply Reserve Fund Grant Application

Instructions

All WSRF grant applications shall conform to the current [2016 WSRF Criteria and Guidelines](#).

To receive funding from the WSRF, a proposed water activity must be approved by a Roundtable(s) **AND** the Colorado Water Conservation Board (CWCB). The process for Roundtable consideration and recommendation is outlined in the 2016 WSRF Criteria and Guidelines. The CWCB meets bimonthly according to the schedule on page 2 of this application.

If you have questions, please contact the current CWCB staff Roundtable liaison:

Arkansas

Ben Wade
ben.wade@state.co.us
303-866-3441 x3238

Gunnison | North Platte | South Platte | Yampa/White

Craig Godbout
craig.godbout@state.co.us
303-866-3441 x3210

Colorado | Metro | Rio Grande | Southwest

Megan Holcomb
megan.holcomb@state.co.us
303-866-3441 x3222

WSRF Submittal Checklist (Required)

X	I acknowledge this request for funding was recommended for CWCB approval by the sponsoring Basin Roundtable(s).
X	I acknowledge I have read and understand the 2016 WSRF Criteria and Guidelines .
X	I acknowledge the Grantee will be able to contract with CWCB using the Standard Contract . ⁽¹⁾
Exhibit A	
X	Statement of Work ⁽²⁾ (Word – see Exhibit A Template)
X	Budget & Schedule ⁽²⁾ (Excel Spreadsheet – see Exhibit A Template)
	Letters of Matching and/or Pending 3 rd Party Commitments ⁽²⁾
Exhibit C	
X	Map ⁽²⁾
X	Photos/Drawings/Reports
	Letters of Support
	Certificate of Insurance ⁽³⁾ (General, Auto, & Workers' Comp.)
Contracting Documents	
	Certificate of Good Standing ⁽³⁾
	W-9 ⁽³⁾
	Independent Contractor Form ⁽³⁾ (If applicant is individual, not company/organization)
	Electronic Funds Transfer (ETF) Form ⁽³⁾

(1) Click "Grant Agreements". For reference only/do not fill out or submit/required for contracting

(2) Required with application if applicable.

(3) Required for contracting. While optional at the time of this application, submission can expedite contracting upon CWCB Board approval.

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Schedule		
CWCB Meeting	Application Submittal Dates	Type of Request
January	December 1	Basin Account; BIP
March	February 1	Basin/Statewide Account; BIP
May	April 1	Basin Account; BIP
July	June 1	Basin Account; BIP
September	August 1	Basin/Statewide Account; BIP
November	October 1	Basin Account/BIP

Desired Timeline	
Desired CWCB Hearing Month:	March 2018
Desired Notice to Proceed Date:	April 2018

Water Activity Summary		
Name of Applicant	Redlands Water and Power Company	
Name of Water Activity	Pumping Plant Modernization Feasibility Study	
Approving Roundtable(s)	Basin Account Request(s) ⁽¹⁾	
Gunnison Basin Roundtable	\$25,500	
Basin Account Request Subtotal	\$25,500	
Statewide Account Request ⁽¹⁾	\$37,500	
Total WSRF Funds Requested (Basin & Statewide)	\$63,000	
Total Project Costs	\$75,000	

(1) Please indicate the amount recommended for approval by the Roundtable(s)



Last Update: May 19, 2017

Grantee and Applicant Information	
Name of Grantee(s)	Redlands Water And Power Company
Mailing Address	2216 S. Broadway, Grand Junction, CO 81507
FEIN	84-0301010
Grantee's Organization Contact ⁽¹⁾	Kevin Jones
Position/Title	Superintendent/Board Member
Email	redlandswp@fastmail.com
Phone	(970) 243-2173
Grant Management Contact ⁽²⁾	<u>Rae Shannon</u>
Position/Title	Office Manager
Email	redlandswp@fastmail.com
Phone	(970) 243-2173
Name of Applicant (if different than grantee)	
Mailing Address	
Position/Title	
Email	
Phone	

(1) Person with signatory authority

(2) Person responsible for creating reimbursement invoices (Invoice for Services) and corresponding with CWCB staff.

Description of Grantee
Provide a brief description of the grantee's organization (100 words or less).
<i>The Redlands Water and Power Company (RWPC) is a small irrigation and power provider located south of the Colorado and west of the Gunnison Rivers between Grand Junction and Fruita, Colorado in an area known as the Redlands. RWPC was originally established in 1905 as "The Redlands Company" and is classified as a nonprofit 501(c)3 corporation. The Company diverts about 610,000 ac-ft of water each year from the Gunnison River at flowrates between 750 and 950 cfs. RWPC provides irrigation water to approximately 1,100 shareholders on about 4,500 acres in the Redlands area.</i>



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Type of Eligible Entity (check one)	
	Public (Government): municipalities, enterprises, counties, and State of Colorado agencies. Federal agencies are encouraged to work with local entities. Federal agencies are eligible, but only if they can make a compelling case for why a local partner cannot be the grant recipient.
	Public (Districts): authorities, Title 32/special districts (conservancy, conservation, and irrigation districts), and water activity enterprises
X	Private Incorporated: mutual ditch companies, homeowners associations, corporations
	Private Individuals, Partnerships, and Sole Proprietors: are eligible for funding from the Basin Accounts but not for funding from the Statewide Account.
	Non-governmental organizations: broadly, any organization that is not part of the government
	Covered Entity: as defined in Section 37-60-126 Colorado Revised Statutes

Type of Water Activity (check one)	
X	Study
	Implementation

Category of Water Activity (check all that apply)		
	Nonconsumptive (Environmental)	
	Nonconsumptive (Recreational)	
	Agricultural	
	Municipal/Industrial	
	Needs Assessment	
	Education & Outreach	
X	Other	Explain: Pump Station Modernization Feasibility Study

Location of Water Activity	
Please provide the general county and coordinates of the proposed activity below in decimal degrees . The Applicant shall also provide, in Exhibit C, a site map if applicable.	
County/Countries	Mesa
Latitude	39.0671 N
Longitude	108.5932 W

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Water Activity Overview

Please provide a summary of the proposed water activity (200 words or less). Include a description of the activity and what the WSRF funding will be used for specifically (e.g. studies, permitting, construction). Provide a description of the water supply source to be utilized or the water body affected by the activity. Include details such as acres under irrigation, types of crops irrigated, number of residential and commercial taps, length of ditch improvements, length of pipe installed, area of habitat improvements. If this project addresses multiple purposes or spans multiple basins, please explain. The Applicant shall also provide, in Exhibit A, a detailed Statement of Work, Budget, and Schedule.

The Redlands Water and Power Company (RWPC) is requesting funding to complete a feasibility study to modernize their Pump Station No. 1 pumping facility. RWPC intends to complete a comprehensive alternatives analysis and feasibility study in order to initiate a design build project. Construction of the Pump Station began in 1917 and it is still in use today. The maximum output is 65 cfs. The four electric horizontal centrifugal pumps are located in the pump pit allowing for positive suction head. There is one vertical turbine-regulating pump located outside the pump house in the canal prism. The pump house is in need of extensive upgrade and modification and the electrical switchgear and power-lines need replacement to meet National Electrical Code (NEC) standards.

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Measurable Results

To catalog measurable results achieved with WSRF funds please provide any of the following values.

	New Storage Created (acre-feet)	
	Existing Storage Preserved or Enhanced (acre-feet)	
	Length of Stream Restored or Protected (linear feet)	
\$40,000/yr	Efficiency Savings (indicate acre-feet/year OR dollars/year)	
	Area of Restored or Preserved Habitat (acres)	
	Other	Explain:

Water Activity Justification

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Water Activity Justification

Provide a description of how this water activity supports the goals of [Colorado's Water Plan](#), the most recent [Statewide Water Supply Initiative](#), and the respective [Roundtable Basin Implementation Plan and Education Action Plan](#) ⁽¹⁾. The Applicant is required to reference specific needs, goals, themes, or Identified Projects and Processes (IPPs), including citations (e.g. document, chapters, sections, or page numbers).

For applications that include a request for funds from the Statewide Account, the proposed water activity shall be evaluated based upon how well the proposal conforms to Colorado's Water Plan criteria for state support (CWP, Section 9.4, pp. 9-43 to 9-44;) (Also listed pp. 4-5 in [2016 WSRF Criteria and Guidelines](#)).

Roundtable Basin Implementation Plan

Page 6, Table 7, Item 20 of the Gunnison Basin Implementation Plan Executive Summary identifies the Redlands Pump Modernization Project as a proposed Basin Project meeting Tier 1 Basin Goals No. 3, 5, 7 & 8.

Goal 3 – Improving agricultural water supplies to reduce shortages. – Modernization of the RWPC Pump Station No. 1 will improve the reliability and efficiency of the pump station. This will reduce the possibility of outages related to electrical and mechanical issues related to pump operation. In addition, more efficient pumping will reduce the electrical demand by up to 20% allowing this saved power to be sold to XCEL Energy. This additional revenue can then be funneled back into maintenance and improvement of other infrastructure thus further improving the reliability of water delivery.

Goal 5 – Quantify and Protect environmental and recreational water uses. –The RWPC owns the senior right on the Gunnison River. Since the RWPC is near the lower end of the river this water right is critical in maintaining flows in the Gunnison River which are important for the recovery of the endangered fishes of the Colorado River Basin. It is important to have operable and efficient facilities in order to maintain the RWPC water rights on the Gunnison River.

Goal 7 – Describe and encourage the beneficial relationship between agricultural and environmental and recreational water uses. – The RWPC works cooperatively with the U.S. Fish and Wildlife Service to maintain a Fish Passage and Fish Screen for endangered fish. Improved operation of the pump facilities will continue to assist in this relationship.

Goal 8 – Restore, maintain and modernize critical water infrastructure, including hydropower – Improvements to of the RWPC Pump Station No. 1 will help fulfill this goal by modernizing the facility. The proposed Feasibility Study will analyze alternatives, develop cost-estimates, and recommend a course of action to either rebuild and modernize the pumps in-place or construct a new pump facility in an alternate location. Improvements that will be considered include automation, flow meters, Variable Frequency Drive, and hydraulic driven pumps.

Colorado Water Plan Goals

- A. *Supply-Demand Gap – Protect and Develop Compact Entitlements and Manage Risks***
This project is integrally tied to the non-consumptive (power) portion of the RWPC water right. The rehabilitation of the pumps will allow for increased energy efficiency and lead to increased revenue from the non-consumptive water right. The RWPC hydroelectric facility and water right are integral to the continued delivery of water to the state line. The non-consumptive use of water at the lower reach of the Gunnison is important to avoiding a Colorado River Compact deficit.
- B. *Conservation – Increase Municipal Conservation and Efficiency***
This project promotes municipal conservation by ensuring an efficient and reliable supply of secondary water to the Redlands area of Grand Junction.

(1) Access Basin Implementation Plans or Education Action Plans from Basin drop down menu.



Last Update: May 19, 2017

Matching Requirements: Basin Account Requests	
Basin (only) Account grant requests require a 25% match (cash and/or in-kind) from the Applicant or 3 rd party and shall be accompanied by a letter of commitment as described in the 2016 WSRF Criteria and Guidelines (submitted on the contributing entity's letterhead). Attach additional sheet if necessary.	
Contributing Entity	Amount and Form of Match (note cash or in-kind)
Total Match	
If you requested a Waiver to the Basin Account matching requirements, indicate the percentage you wish waived.	

Matching Requirements: Statewide Account Requests	
Statewide Account grant requests require a 50% match as described in the 2016 WSRF Criteria and Guidelines. A minimum of 10% match shall be from Basin Account funds (cash only). A minimum of 10% match shall be provided by the applicant or 3 rd party (cash, in-kind, or combination). The remaining 30% of the required match may be provided from any other source (Basin, applicant, or 3 rd party) and shall be accompanied by a letter of commitment . Attach additional sheet if necessary.	
Contributing Entity	Amount and Form of Match (note cash or in-kind):
Redlands Water and Power Company	\$6,000 (cash)
Redlands Water and Power Company	\$6,000 (in-kind)
Gunnison Basin Round Table Account	\$25,500 (cash)
Total Match	\$37,500
If you requested a Waiver to the Statewide Account matching, indicate % you wish waived. (Max 50% reduction of requirement).	



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Related Studies

Please provide a list of any related studies, including if the water activity is complimentary to or assists in the implementation of other CWCB programs.

NA

Previous CWCB Grants

List all previous or current CWCB grants (including WSRF) awarded to both the Applicant and Grantee. Include: 1) Applicant name; 2) Water activity name; 3) Approving RT(s); 4) CWCB board meeting date; 5) Contract number or purchase order

RWPC has not previously received a CWCB grant (including WSRF).

Tax Payer Bill of Rights

The Tax Payer Bill of Rights (TABOR) may limit the amount of grant money an entity can receive. Please describe any relevant TABOR issues that may affect the applicant.

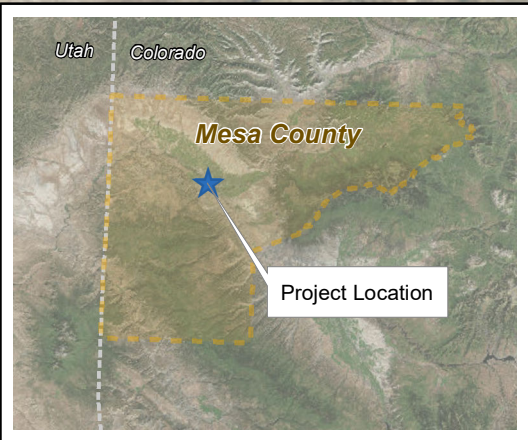
RWPC is a private company, not subject to Tabor limitations.

RWPC Pumping Plant Modernization

Exhibit C

RWPC Hydro Plant

RWPC Pumping Plant



0 0.25 0.5 Miles



JUB
J-U-B ENGINEERS, INC.



THE
LANGDON
GROUP
A JUB COMPANY



GATEWAY
MAPPING
INC.
A JUB COMPANY

OTHER J-U-B COMPANIES

RWPC Diversion



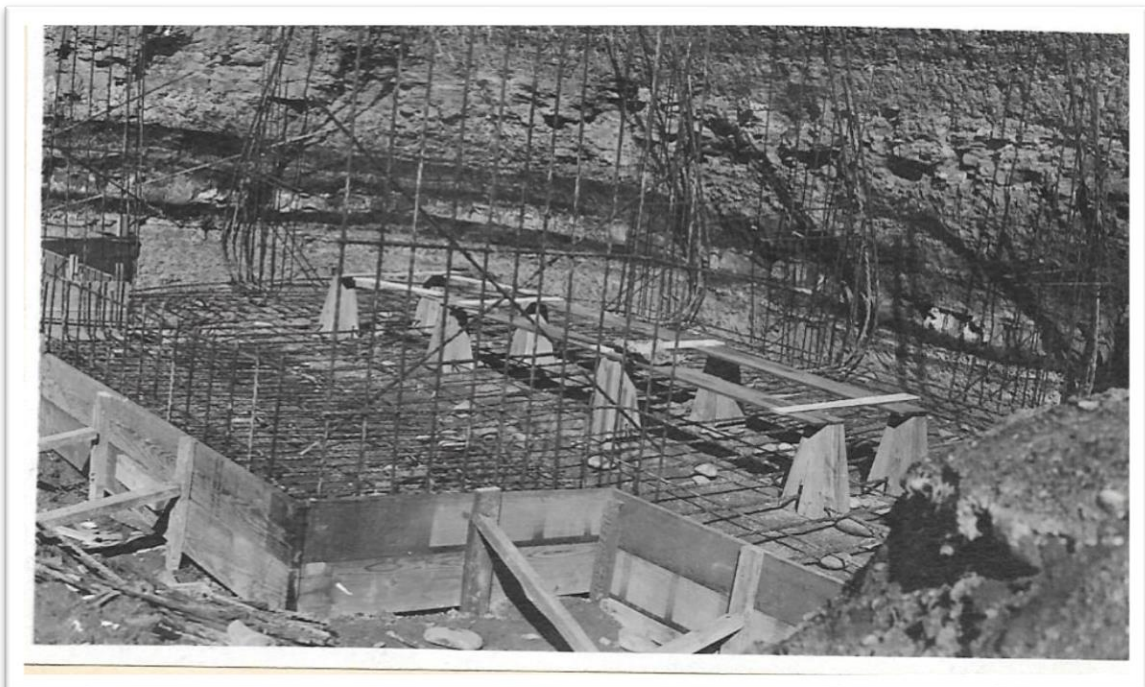
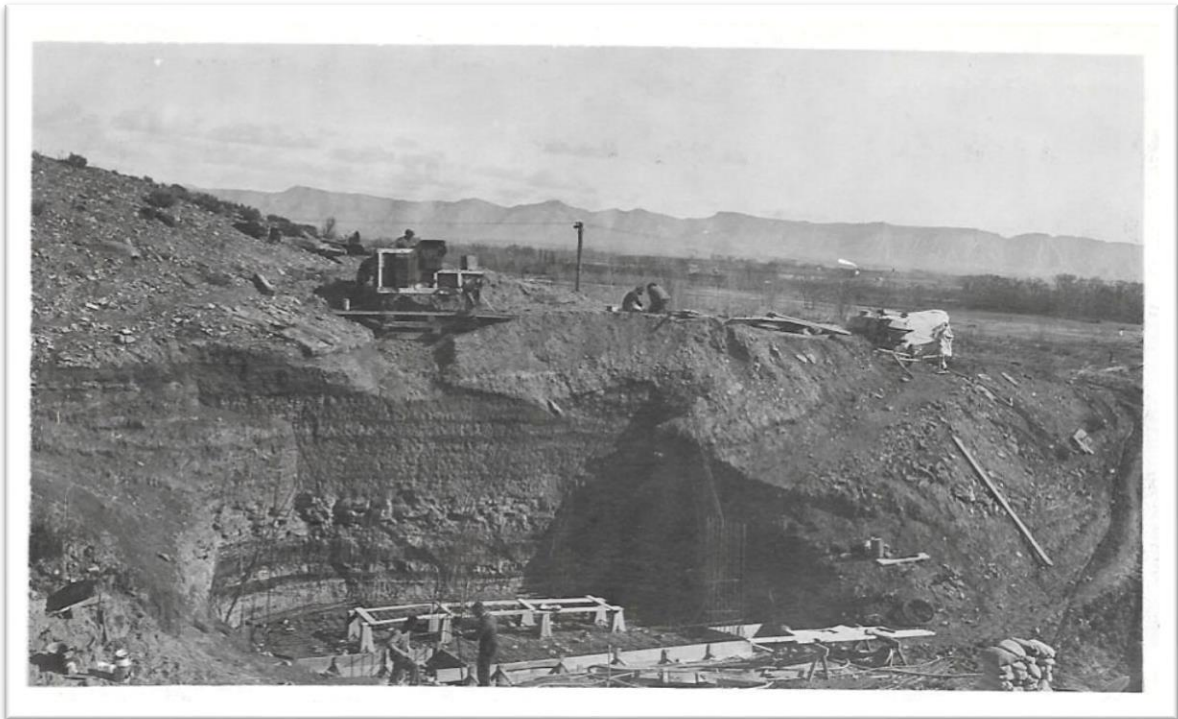
Last Update: May 19, 2017



Redlands WPC Pumping Plant Intake - 2011



Last Update: May 19, 2017



Pumping Plant - Early Construction



Last Update: May 19, 2017



Pumping Plant Intake - Early Completion



Pumping Plant – Current Electrical



Pumping Plant – Current Condition