NEBRASKA
Good Life. Great Resources.
DEPT. OF ENVIRONMENT AND ENERGY

Pete Ricketts, Governor

CLEAN WATER STATE REVOLVING LOAN FUND PROGRAM
FINDING OF NO SIGNIFICANT IMPACT (FNSI)

TO: All Interested Citizens, Government Agencies and Public Groups

In accordance with the Nebraska Clean Water State Revolving Fund environmental review process, which is based on the National Environmental Policy Act, an environmental review has been performed on the proposed agency action below.

This information reviews the environmental impact likely from a project. This project is planned to be federally funded through your tax dollars; therefore, you are entitled to take part in its review. If you have concerns about the environmental impact of this project, please provide them at this time. The Nebraska Department of Environment and Energy (NDEE) encourages public input in this decision-making process.

PROJECT NAME:	Treated Effluent Disposal via Land Application
APPLICANT:	Village of Plymouth, NE
COUNTY:	Jefferson County
POPULATION:	377 (estimate)
CWSRF PROJECT NUMBER:	C318032
TOTAL PROJECT AMOUNT:	$307,400
PROPOSED CWSRF LOAN FORGIVENESS AMOUNT:	$150,000
PROPOSED CWSRF LOAN AMOUNT:	$157,400

The Village of Plymouth is located in southeastern Nebraska, off of Nebraska State Highway 4. It is about 14 miles northwest of Beatrice, NE. The community has experienced a declining population over the past decade, with a current estimated population of 377.

Plymouth's existing wastewater infrastructure consists of a centralized sanitary sewer collection station that transfers raw wastewater, via gravity, to a three-cell, controlled discharge facultative lagoon system. The original wastewater treatment facility (WWTF) was constructed in 1954 and consisted of a two-cell, controlled discharge lagoon. The WWTF was expanded in 1979 when the two-cell lagoon system was converted into a single primary cell and two more lagoon cells were added, for a total surface area of 9.7 acres. There is an outfall structure that allows for controlled discharge of effluent out of Cell #3 to a tributary of the Big Blue River (BB1-10000 of the Big Blue River Basin).

The Village of Plymouth has applied for funding of the above-referenced project through the Clean Water State Revolving Fund (CWSRF) program administered by the NDEE. The Village currently has a National Pollutant Discharge Elimination System (NPDES) permit to discharge

Department of Environment and Energy
P.O. Box 98922
Lincoln, Nebraska 68509-8922

Jim Macy, Director
OFFICE 402-471-2186 FAX 402-471-2909
ndee.moreinfo@nebraska.gov

treated effluent. On April 1, 2021, four and one-half years after the date of the current permit (October 1, 2016), the ammonia permit limits will be lowered. To comply with these lower limits, the transition from a primary treated effluent disposal method of "controlled discharge" to "land application" is proposed. The Village plans to retain their NPDES permit so that controlled discharge can still occur during periods of excessively wet weather. The proposed land application will occur on existing farmland through the landowner's existing two irrigation pivots. The proposed project will include the addition of a transfer pipe between two of the cells, a screen, pump, irrigation piping and valves, and flow meters. If excessive sludge is found in the lagoon cells during construction, this will be removed as part of the project, as well.

A number of Federal, State, and local agencies were asked to review the project for environmental impacts. The majority of the agencies responding indicated that there would be no adverse impact, have no effect, or posed no concern. Comments provided by the U.S. Fish and Wildlife Service (USFWS) and the Nebraska Game and Parks Commission (NGPC) included concerns regarding adverse impacts on federally and state-listed threatened or endangered species and recommended construction timing restrictions to minimize species impact. The Department of Natural Resources (DNR) noted that a registered groundwater well is located within the proposed project area so special care should be taken to locate and avoid impacting wells in any significant way. Temporary impacts that may be caused by construction include noise and dust and a limited potential for soil erosion and fuel and oil spills. No wastewater bypasses are expected during construction.

The project is eligible for financing through the Clean Water State Revolving Loan Fund (CWSRF) and is included in the FY2021 Intended Use Plan. The total estimated project cost is $307,400. The Village is eligible for a 20-year loan at an interest rate of 1.0 percent. The Village qualifies for a 0.5% reduction from the normal 1.5% interest rate since the proposed project includes Green Project Reserve (GPR) components. In addition to principal and interest payments, an administrative fee of 1.0 percent of the principal balance will be assessed each year. The revenues from Plymouth's wastewater utility will be dedicated to repaying the loan. The projected annual CWSRF Debt Service (including 10% coverage) for the project is $11,284. For a typical residential connection, the current monthly rate is a flat fee of $14.15. Based on 218 active service connections, monthly household rates may need to be raised $4.31 to pay for the new debt service.

A Public Hearing was held October 26, 2020, at the Plymouth Community Center and convened at 7:30 PM. During the Hearing, the Engineer discussed details of the project and the expected project cost. No public comments were made. The hearing was advertised 31 days in advance.

The review did not indicate a significant environmental impact will result from the proposed action. Measures will be undertaken so that critical habitats will not be adversely impacted. Timing of construction will be addressed in the project specifications to minimize impacts to endangered species. No known historical or archaeological sites will be impacted. The project will comply with Title 179 Nebraska Department of Health & Human Services regulations. The project was planned to ensure that no segment of the community's population is impacted

disproportionately from related effects. Consequently, a preliminary decision has been made that an Environmental Impact Statement (EIS) will not be prepared.

The project is anticipated to have a positive impact on the environment. Center pivot land application makes productive reuse of the Village's wastewater and minimizes the discharge to surface waters. The treated wastewater will be applied at an agronomic rate to cropland in accordance with regulations to protect surface water and groundwater.

This action is taken on the basis of a careful review of the engineering reports and other supporting data that are on file with NDEE. All are available for public review upon request. A copy of the environmental assessment is attached. The NDEE will not take any administrative action on the project for at least 30 calendar days from the date shown below. Persons having a comment on this determination are encouraged to submit directly to Hillary Stoll at (402) 471-4252 or email hillary.stoll@nebraska.gov of the Technical Assistance Section of NDEE, or Sarah Frey at (402) 471-4266 or email sarah.frey@nebraska.gov of the State Revolving Fund Section of NDEE.

Signed this 16TH day of 12/16/2020, 2020.

Sincerely,

DocuSigned by:
Jim Macy
3FBEA3B00A2B451...

Jim Macy
Director

Attachments: Environmental Assessment
Distribution List
Map

ENVIRONMENTAL ASSESSMENT DOCUMENT

A. Project Identification:

Applicant: Village of Plymouth
Project No.: C318032
City: Village **County:** Jefferson **State:** NE
Estimated Project Cost: $307,400
Proposed Amount of Loan Forgiveness: $150,000

B. Community Description:

Location: The Village of Plymouth is located in southeastern Nebraska, off of Nebraska State Highway 4. It is about 14 miles northwest of Beatrice, NE.

Population: The community has experienced a declining population over the past decade with a current estimated population of 377.

Current Wastewater Facilities: Plymouth's existing wastewater infrastructure consists of a centralized sanitary sewer collection station that transfers raw wastewater via gravity to a three-cell, controlled discharge facultative lagoon system. The original wastewater treatment facility (WWTF) was constructed in 1954 and consisted of a two-cell, controlled discharge lagoon. The WWTF was expanded in 1979 when the two-cell lagoon system was converted into a single primary cell and two more lagoon cells were added, for a total surface area of 9.7 acres. Cell #1 has a depth of five feet and Cells #2 & 3 have a depth of four feet. The cells are in good condition aside from some cattails that need to be removed from Cell #1 and potential rip rap improvements. There is an outfall structure that allows for controlled discharge of effluent out of Cell #3 to a tributary of the Big Blue River (BB1-10000 of the Big Blue River Basin). The Village currently has a National Pollutant Discharge Elimination System (NPDES) permit to discharge treated effluent.

C. Project Description: On April 1, 2021, four and one-half years after the date of the current permit (October 1, 2016), the ammonia permit limits will be lowered. To comply with these lower limits, the transition from a primary treated effluent disposal method of "controlled discharge" to "land application" is proposed. The Village plans to retain their NPDES permit so that controlled discharge can still occur during periods of excessively wet weather. The proposed land application will occur on existing farmland through the landowner's existing two irrigation pivots. The proposed project will include the addition of a transfer pipe between two of the cells, a screen, pump, irrigation piping and valves, and flow meters. The lagoon cells are in good condition, but some potential rip-rap improvements may occur when the water level is lowered for construction and the lagoon cells can be more thoroughly inspected. If excessive sludge is found in the lagoon cells during construction, this will be removed as part of the project, as well.

D. Alternatives Considered:

Alternatives considered were:

1. No project, or
2. Complete Retention Facultative Lagoons
3. Land Application Facultative Lagoons

Evaluation and Selection of the Alternative: On April 1, 2021, the NPDES ammonia limits will be lowered considerably. The maximum limits for ammonia for the summer, spring, and winter months will drop by 82%, 68%, and 10%, respectively. Therefore, if the Village does nothing, they will likely have difficulty maintaining compliance with their NPDES permit when the more stringent limits become effective. Because the Village must maintain compliance with their NPDES permit, no project is not a viable option.

One option for the Village is to add additional storage capacity to the existing facility so that it can operate as a complete retention lagoon system. For many municipalities without the option of land application of wastewater, this is the best option. However, a landowner with property adjacent to the existing WWTF is interested in application of the treated wastewater to the existing agricultural land. This not only provides a beneficial reuse of the wastewater and decreases the need for fertilizer use on the agricultural land, but is also a less costly option for the Village than the construction of additional lagoon storage for a complete retention lagoon system. Therefore, land application of treated wastewater is the selected alternative.

E. Environmental Impact Summary:

Primary:

Construction: Temporary impacts caused by construction include noise and dust, a limited potential for soil erosion, and fuel/oil spills. No wastewater bypasses are expected during construction. A construction permit will be obtained from the NDEE.

Environmental: The construction contracts will require that the contractors return the area to its original or better condition. Construction will occur on land owned by the Village and agricultural land. A legal agreement will be executed between the landowner and the Village allowing the Village to apply treated wastewater to two properties adjacent to the WWTF. Comments provided by the U.S. Fish and Wildlife Service (USFWS) and the Nebraska Game and Parks Commission (NGPC) included concerns regarding adverse impacts on federally and state-listed threatened or endangered species and recommended construction timing restrictions to minimize species impact. These timing

restrictions will be included in the project specifications so that construction will have little, if any, effect on area species.

The proposed project was reviewed by numerous Federal and State agencies for environmental impacts. If during the design phase of the project it is determined that fill material will be placed in any Water of the U.S., a Section 404 permit application will be submitted to the U.S. Army Corps of Engineers. The Department of Natural Resources commented that there is a registered groundwater well located within the proposed project area and impacts to the well should be avoided. The Natural Resources Conservation Service (NRCS) and the Lower Big Blue Natural Resources District did not have any concerns.

Financial: An application for CWSRF loan assistance has been received for the project to fund the proposed improvements to allow for land application of treated wastewater. The total estimated project cost is $307,400. The Village is eligible for a 1.0 percent, 20-year loan and a corresponding amount of principal forgiveness set at 50% of eligible project costs, up to a maximum amount of $150,000. The Village qualifies for a 0.5% reduction from the normal 1.5% interest rate since the proposed project includes Green Project Reserve (GPR) components. If executed, the community will have an annual CWSRF debt service of $11,284, which includes a ten percent coverage that is required on all loans. Included in that amount is an administrative fee of 1.0 percent on the principal balance that will be assessed each year. The revenues from Plymouth's wastewater utility will be dedicated to repay the loan. For a typical residential connection, the current monthly rate is a flat fee of $14.15. Based on 218 active service connections, monthly household rates may need be raised $4.31 to pay for the new debt service. An assessment of costs and revenues will be conducted after completion of the project.

Secondary:

Population Impacts: The proposed wastewater improvements are not needed for future growth, but to allow the Village to maintain compliance with more stringent NPDES ammonia limits. The design for the improvements has taken into consideration the population trends.

Land Use and Trends: The location of the proposed wastewater improvements is the existing WWTF for the Village and land adjacent to the facility. The existing WWTF is northeast of the Village and land application will occur on two properties adjacent to the facility to the east and north. Each of these properties is currently farmed and each has an irrigation pivot with a separate irrigation well. The treated wastewater will be applied through the existing center pivots on the properties. Land application of wastewater will occur at an agronomic rate and will meet all Title 119 regulations. All underground piping will be placed

below ground at a depth where it will not interrupt any planned practices. The Nebraska State Historic Preservation Office determined that there will be no historic properties affected by the proposed project as planned. If any cultural or human remains are discovered during the project, the office will be contacted immediately.

Environmental: Minimal solid waste generated by the project will be disposed of in a licensed landfill. No safety, vibration, noise or aesthetic considerations were identified other than the normal noise and disruptions associated with sewer construction. If sludge is removed from the lagoons, it will be disposed of in accordance with all applicable regulations.

Environmental Justice: The proposed project will not produce any environmental justice concerns. All structures will be placed in areas already disturbed through agriculture, and the services provided by the wastewater improvements will be available to everyone in the Village, equally. No segments of Plymouth's population are impacted disproportionately from related effects.

Mitigation measures necessary to eliminate adverse environmental effect: Proper construction techniques will be utilized to minimize soil erosion and other potential impacts of construction. An NPDES permit for stormwater runoff associated with construction activity and a Stormwater Pollution Prevention Plan will be required by NDEE, if more than one acre of land will be disturbed. The community can designate the General Contractor as the authorized representative on the stormwater permit notice of intent submitted to the NDEE. Authorization of stormwater runoff from the construction activities must be in place prior to commencing construction.

Irreversible and irretrievable commitment of resources: The resources committed to the project include the equipment, materials, and energy used in construction.

F. Measures Taken to Ensure Environmental Soundness:

Public Involvement: A Public Hearing was held October 26, 2020, at the Plymouth Community Center and convened at 7:30 PM. During the Hearing, the Engineer discussed details of the project and the expected project cost. No public comments were made. The hearing was advertised 31 days in advance.

Public Opposition or Opinions: No comments were made.

Coordination and Documentation with Other Agencies and Special Interest Groups:

Facility Planning: Facility Plan Report, JEO Consulting Group, Inc., August 2013
Engineering Report, CES Group, Inc., June 2020

Federal: U.S. Army Corps of Engineers, Omaha District, October 16, 2020, letter
U.S. Department of Agriculture, NRCS, October 19, 2020, email
U.S. Fish and Wildlife Service, October 15, 2020, letter

State: NE Department of Natural Resources, October 13, 2020, letter
NE Game and Parks Commission, October 9, 2020, letter
NE State Historic Preservation Office, October 19, 2020, letter

Local: Lower Big Blue Natural Resources District, October 19, 2020, email

Consulting Engineers: CES Group, Inc., Marysville, KS

Public Groups: Village of Plymouth Residents

G. **Positive Effects to be Realized from the Proposed Project:** The proposed project will help Plymouth avoid noncompliance with their current NPDES permit. Land application of treated wastewater will prevent the Village from violating lower ammonia limits in their NPDES permit. Moreover, land application of treated wastewater provides a beneficial reuse of the water as it can be used for irrigation, and the nutrients present will be valuable for crop production. The project is reasonable, not contrary to conservation or the public welfare, and is a beneficial reuse of wastewater by the Village of Plymouth.

H. **Reasons for Concluding there will be no Significant Impacts:** Review of the engineering reports and supporting information indicates that the proposed project will result in no significant impact on the environment. Measures will be undertaken so that critical habitats will not be adversely impacted. Timing of construction will be addressed in the project specifications to minimize impacts to endangered species. State agencies reported no impact will result for historical resources. All necessary permits for construction have been or will be obtained from the appropriate agencies (i.e. NDEE, the Corps of Engineers, etc.), if necessary.

Reviewing Engineer

12/1/2020
Date

FINDING OF NO SIGNIFICANT IMPACT DISTRIBUTION LIST
PLYMOUTH, NEBRASKA

DEPARTMENT OF ENVIRONMENT & ENERGY
Office of Public Affairs
P.O. Box 98922
Lincoln, NE 68509-8922

DEPARTMENT OF HEALTH AND HUMAN SERVICES – DIVISION OF PUBLIC HEALTH
Steve McNulty
P.O. Box 95026
Lincoln, NE 68509-5026

DEPARTMENT OF NATURAL RESOURCES
Curt Inbody
P.O. Box 94676
Lincoln, NE 68509-4676

NEBRASKA GAME & PARKS COMMISSION
Schuyler Sampson and Shannon Sjolie
P.O. Box 30370
Lincoln, NE 68503-0370

DIRECTOR, NEBRASKA STATE HISTORICAL SOCIETY
Trevor Jones
P.O. Box 82554
Lincoln, NE 68508-2554

STATE OFFICE OF POLICY RESEARCH
Cheryl Wolff
Rm 1319, State Capitol
P.O. Box 94601
Lincoln, NE 68509-4601

DEPARTMENT OF ECONOMIC DEVELOPMENT
Aaron Boucher
P.O. Box 94666
Lincoln, NE 68509

DEPARTMENT OF THE INTERIOR
FISH AND WILDLIFE SERVICE
Eliza Hines
9325 South Alda Road
Wood River, NE 68883

NATIONAL PARK SERVICE
Christine Gabriel
Environmental Coordinator
Midwest Regional Office
601 Riverfront Drive
Omaha, NE 68102-4226

USDA RURAL DEVELOPMENT
Ryan Brandt, P.E.
Room 308, Federal Building
100 Centennial Mall North
Lincoln, NE 68508

ENVIRONMENTAL PROTECTION AGENCY
Chris Simmons and Kelly Beard-Tittone
11201 Renner Blvd
Mail Code: WWPDWIMB
Lenexa, KS 66219

STATE CONSERVATIONIST
Wayne Vanek
Natural Resources Conservation Service
Federal Building, Room 152
100 Centennial Mall North
Lincoln, NE 68508-3866

DEPARTMENT OF THE ARMY
John Moeschen
State Program Manager
US Army Corps of Engineers
Nebraska State Office, Suite 1
8901 South 154th Street
Omaha, NE 68138-3621

APPLICANT:
Tana Hofstetter, City Clerk
Village of Plymouth
313 E. Main St, P.O. Box 218
Plymouth, NE 68424

CONSULTING ENGINEER:
E. James Kohman, P.E.
CES Group, Inc.
1102 Broadway Street
Marysville, KS 66508

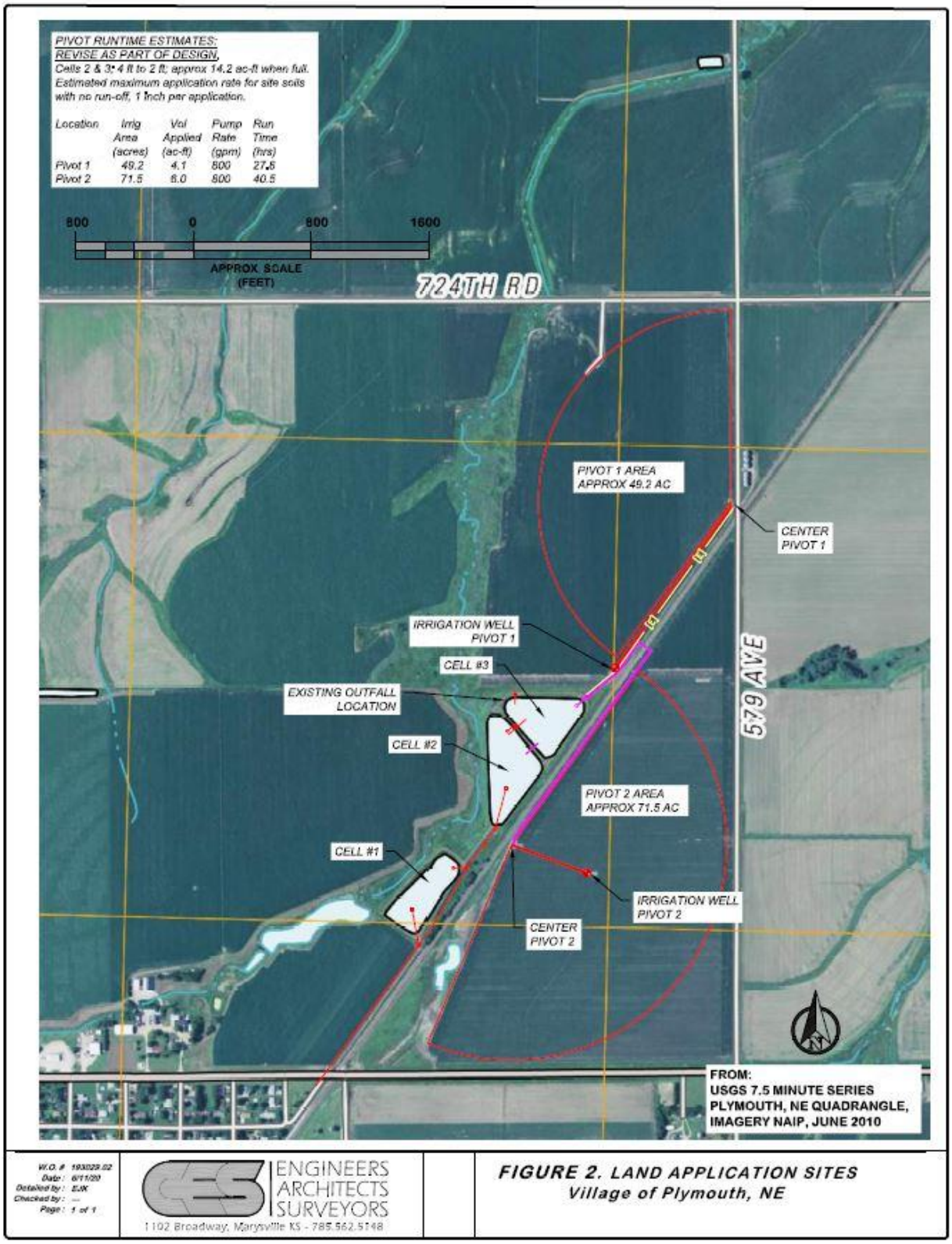
LOCAL NEWSPAPER:
Beatrice Daily Sun
110 S. 6th Street
Beatrice, NE 68310

(Public Information Only not for Public Notice)

NATURAL RESOURCES DISTRICT:
Lower Big Blue Natural Resources District
805 Dorsey Street
P.O. Box 826
Beatrice, NE 68310

*Due to the COVID-19 pandemic, this FNSI has been distributed to this list electronically via email instead of physically via a mailed document.

MAP



(From Engineering Report Submitted by CES Group, June 12, 2020)