

Environment and Social Monitoring Report

Semi-Annual Report (January to June 2020)

August 2021

Viet Nam: WATER SECTOR INVESTMENT PROGRAM – TRANCHE 3

**CUA LO TOWN WATER SUPPLY SYSTEM ENHANCEMENT AND
EXPANSION PROJECT, NGHE AN PROVINCE**

Prepared by Cua Lo Water Supply Joint Stock Company for the Provincial People's Committee
of Nghe An Province and the Asian Development Bank

**CUA LO TOWN WATER SUPPLY SYSTEM ENHANCEMENT AND
EXPANSION PROJECT, NGHE AN PROVINCE**

LOAN ADB No.3251-VIE

REPORT ON PERIODIC SOCIO-ENVIRONMENTAL MONITORING

Phase: from 01st January 2020 to 30th June 2020



Submitted By

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Phase: from 01st January 2020 to 30th June 2020

CONTRACT NO: CL-CS 2
PACKAGE: CONSTRUCTION SUPERVISION
PROJECT: CUA LO WATER SUPPLY SYSTEM UPGRADING
AND EXPANDING PROJECT

Submitted by: CONSTRUCTION SUPERVISION CONSULTANT	
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ABBREVIATIONS

ADB	Asian Development Bank
CEMP	Community Environmental Management Plan
CSC	Construction Supervision Consultants
EMC	Environmental Monitoring Consultant
EMP	Environmental Management Plan
SEMP	Site Environmental Management Plan
GAP	Gender Action Plan
GRM	Grievance Redress Mechanism
IEE	Initial Environmental Examination
JSC	Joint Stock Company
MONRE	Ministry of Natural Resources and Environment
PIC	Project Implementation Consultant
PPC	Provincial People's Committee
PMU	Project Management Unit
RP	Resettlement Plan

NOTE

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1 Introduction and Project Overview

1. Cua Lo Water Supply System Upgrading and Expanding project has a total project investment estimated about USD 16,096,000. Of which ADB loan is USD 13,190,000 and the counterpart fund of Nghe An Provincial People's Committee (PPC) is USD 2,906,000.

2. The Project comprises of 3 following components:

NA-CL-CW1 / ICB contract dated June 12, 2017 between Cua Lo Water Supply Joint Stock Company and Joint Venture of Ha Huy Joint Stock Company, Vietnam Water and Environment Investment Corporation-Vietnam Construction Joint Stock Company build number 12.

- Construction of Nghi Hoa water supply plant in Nghi Hoa commune, Nghi Loc district with capacity 10,000 m³/day connected with existing WTP capacity 3,000 m³/day to reach 13,000 m³/day in 2020. Raw water is taken from Phuong Tich river. Main categories of the project are: Intake works, reservoir, raw water pumping station, treatment plant, water tank, secondary pumping station, chemical room, sludge collection site, and auxiliary works;

Contractor: Ha Huy Joint Stock Company

Commander: Le Quoc Hung

Phone number: +84-979-874-402

Time to start construction: 12 July 2017

Construction completion time: 30 Dec, 2019

- Construction of pressure boost pumping station and office house in Nghi Huong ward, Cua Lo town consisting of water tanks, pumping station, office house, storage, guardhouse, fence, Etc.

Contractor: Vietnam Water Supply and Sewerage Construction Investment Corporation (VIWASEEN)

Commander: Tran Xuan Thai

Phone number: +84-985-112-169

Time to start construction: 12 July 2017

Construction completion time: 30 Dec, 2019

- Construction of transmission pipeline networks and distribution pipeline networks D110÷D450 with the total length of 52.6 km; service network D32÷D90 L= 241.8 km and 7,352 connection points to households. HDPE pipes will be used for the network.

Contractor: Vinaconex 12 Construction Company

Commander: Vu Anh Tuan

Phone number: +84-978-697-313

Time to start construction: 12 July 2017

Construction completion time: 30 Dec, 2019

3. Contract No. NA-CL-CS2 "Construction Supervision for Cua Lo Water Supply System Upgrading and Expanding project" was signed by and between Joint Venture of Viet Nam Water, Sanitation and Environment Joint Stock Company (JSC) and Meinhardt (Vietnam) Ltd. and the Cua Lo Water Supply JSC on 28 June 2016. The consultancy service package was officially commenced on 12 July 2017.

4. According to the contract documents, the construction supervision consultants as well as Cua Lo Water Supply JSC are responsible for monitoring the compliance of environmental and social safeguards during the project implementation. Specifically, the approved Environmental Management Plan (EMP), Resettlement Plan (RP), and Gender Action Plan (GAP) must be complied throughout the project implementation. The progress of updating safeguard documents is as follow:

- Revised EMP was prepared and submitted to ADB on January 9, 2017. ADB had no objection this report on June 20, 2017.
- Resettlement Due Diligence Report for of the raw water intake and booster pumping station, rehabilitation and expansion of the WTP (Before loan fact finding mission - Since payments had already been made without an approved RP) was prepared and approved by ADB on 2014
- Resettlement Due Diligence Report for construction of transmission and distribution network was prepared and submitted to ADB on January 9, 2017. ADB had no objection this report on June 20, 2017.
- Due Diligence Report Items Network pipeline was prepared and submitted to ADB on September 25, 2019. ADB had no objection this report on May 13, 2020.

5. This semi-annual monitoring report is to describe the periodically monitoring results on environmental and social safeguards implementation of the project during the first six-month period of 2020 (from January to June 2020).

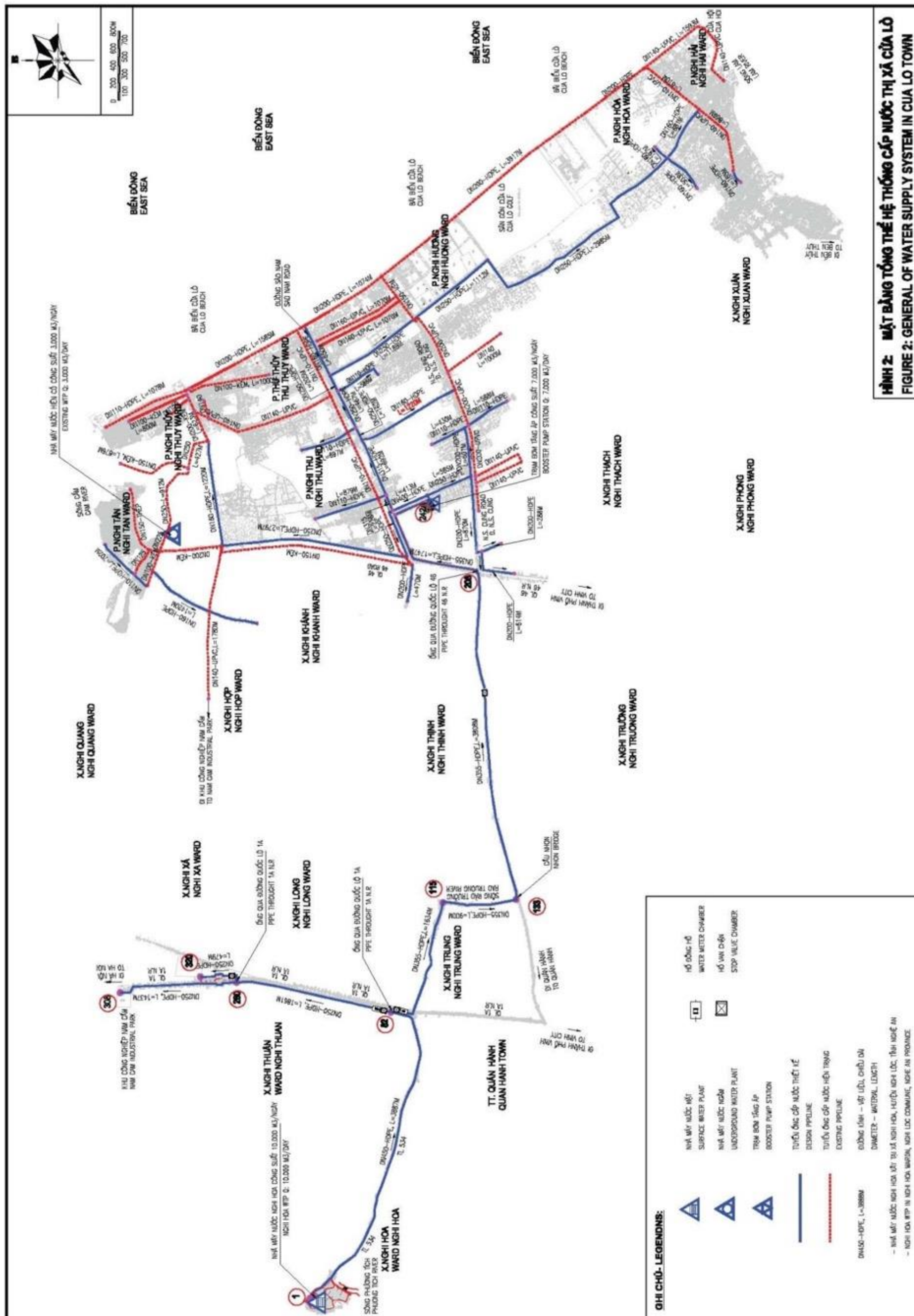
6. The environmental and social safeguard monitoring by the Consultant is carried out in accordance with the following procedures:

- Work closely with construction supervision consultants (CSC) to complete the log construction process (including the content of the EMP implementation), fill in the monthly monitoring forms;
- Access to and examine records relating to the compensation, site clearance and resettlement process of the project;
- Monthly site visit to construction locations of the project; Working with contractors, CSC to understand the progress of the construction and implementation of environmental and social safeguard policies;
- Directly interview with local households affected by the project construction.

Table 1: Project Overview, Snapshot of Project Progress

Project Number and Title:	Loan 3251-VIE -Water Sector Investment Program - Tranche 3 Cua lo Water Supply System Upgrading and Expanding project	
Safeguards Category	Environment	B
	Indigenous Peoples	C
	Involuntary Resettlement	B
Reporting period:	January – June 2020	
Last report date:	July - Dec 2019	
Key project activities since last report:	<ul style="list-style-type: none"> - Test operation of water supply system - Check the quality of water inputs and outputs of water plants 	
Key project activities during this period	<ul style="list-style-type: none"> - In the first 6 months of 2020, construction work was completed. Due to the Covid epidemic, the project mainly operates internally to complete environmental safety records such as water quality testing for the operation phase. - Approval of Due Diligence report for temporary impacts on 61 households (March 2020) 	

	- Disclosure contents of DDR to affected households in March 2020
Key project activities in next period	- Preparation the completion report for the project in terms of social safeguard implementation
Report prepared by:	Mr. Tran Phuc Thanh – Deputy Director of Project Management Unit (PMU)



2 Environmental Performance Monitoring

2.1. Summary of Compliance with EMP Requirements (Environmental Performance)

Table 2: Roles and Responsibilities on EMP

No.	Organization	Responsibilities	Status of Performance Compliance
1	Project Management Unit (PMU)	<p>For strict compliance with the Environment Management Plan, the PMU should supervise the contractors' undertaking of mitigation measures. With regards to environmental monitoring, the PMU's responsibilities are:</p> <ul style="list-style-type: none"> - Monitoring of environmental related performance indicators - Unscheduled site visit to ensure contractor's compliance to mitigation measures as specified in the contracts. - Review of CSC's periodic reports to ensure compliance to mitigation measures - Review of CSC's reports on general impacts of the project - Reporting to ADB and MONRE on environmental compliance based on CSC's reports, as part of semi-annual reporting duty to ADB - Close cooperation with stakeholders in charge of water supply, environmental sanitation, waste collection Etc. to monitor the operation and maintenance during the operational phase. - Coordination of the resolution of public's grievances - Cua Lo PMU's Environmental-Social officer: Mr. Trí (Phone number: +84-916-104-668) 	<ul style="list-style-type: none"> - Being complied + The form of monitoring of environmental performance indicators is done by the environmental officer of the PMU once a week. Forms are stored in labor safety and environmental records. + Mr. Trí has conducted field inspections once a week since when 01/01/2020 – 30/06/2020 January 1, 2020 – June 30, 2020 + PMU always reviews the monthly / quarterly progress report of the Construction Supervision Consultant. Issues (if any) will be resolved at the beginning of the month meeting (Attached the minutes of the monthly meeting) + Every week, the Construction Supervision Consultant always reports to the PMU on the construction works that cause the environmental impacts of the contractors. In order for PMU to solve this problem promptly. + The PMU submits a social environment monitoring report to ADB, every 6 months.

			<ul style="list-style-type: none"> + Complaints and grievances about the project are summarized by Mr. Tri and reported to PMU's leaders (Cua Lo PMU's Environmental-Social officer: Mr. Tri mobile: +84-916-104-668)
2	Construction Supervision Consultant (CSC)	<p>Supervise construction activities; supervise technical standards and construction progress of contractors.</p> <p>For the environment, the CSC is responsible for supervising the implementation of contractors' mitigation measures according to the requirements in the EMP. Includes the following main tasks:</p> <ul style="list-style-type: none"> - Ensuring contractors and workers have been trained and instructed on environment and safety. - Ensuring that contractors assemble, maintain and clean machine or equipment daily and toilets, and drainage systems suitable for workers. - Ensuring that contractors have obtained all permissions on discharging wastewater and removing solid waste from the construction sites. - Checking the construction sites' safety conditions, such as internal roads, fences, warning signals, lights, electrical safety, and drainage system. - Conducting regular site inspections; conducting environmental effect monitoring in accordance with the monitoring plan cleared by ADB. 	<ul style="list-style-type: none"> - In the first 6 months of 2020, CSC is still mobilized to supervise the project. Project progress reports are still submitted monthly by CSC to the investor and ADB. - Being complied <ul style="list-style-type: none"> + Each construction contractor always has 01 environmental officer and is fully trained in labor safety. The list of trained workers is updated in the contractor's occupational safety and environment profile. Records are kept at the construction office of the contractor. + In the Water Plant Office, Contractor Vietnam Water Supply and Sewerage Construction Investment Corporation (VIWASEEN) has set up a camp for workers meeting labor safety and hygiene standards. + In the Nghi Hoa water plant category: Contractor Ha Huy Joint Stock Company has rented a house next to the construction work as an office building for workers, on the site there is a portable toilet. + In the pipeline category: Contractor Vinaconex 12

			<p>Construction Company leases houses</p> <p>+ Construction solid waste will be collected, transported and treated by Nghi Loc Green Environment JSC.</p>
3	<p>Environmental Monitoring Consultant (EMC) (As part of the project supervision consultancy contract)</p>	<p>Responsibilities of environmental monitoring consultants include:</p> <ul style="list-style-type: none"> - Ensure that the EMP has been approved and that loan agreements related to environmental safety will be applied and followed throughout the project implementation process; - Ensure that environmental mitigation measures are established as required in project implementation aspects; - Evaluate the effectiveness of the contractor and CSC's mitigation measures during the implementation process and make recommendations and recommendations to the PMU for the improvements or improvements needed to meet the requirements. safeguard; - Report periodically to the PMU on the actual implementation of the EMP during the implementation of the project. In case of necessity, more detailed assessment and local consultation may be required to identify potential impact and mitigation measures; - Establish standard procedures, methods and forms to assist the PMU and CSC in assessing the Contractor's progress in implementing the necessary monitoring and mitigation measures; - Assist the project management board and its environmental staff to review and examine the detailed design and relevant parts of the 	<p>- Being complied</p> <ul style="list-style-type: none"> + Co-ordinating with the PMU and the construction supervision consultant to provide environmental management and minimize the impact necessary to the contractor; + Check the archiving of occupational safety dossiers submitted by contractors to PMU. + Training for PMU and operators to handle water input incidents at Nghi Hoa water plant. <p>- Partly complied</p> <ul style="list-style-type: none"> + Preparing a social environment monitoring report every 6 months. However, it has not been submitted to PMU and ADB on schedule.

		<p>Contract Document to ensure compliance with environmental protection and monitoring requirements and mitigation;</p> <ul style="list-style-type: none"> - Organize regular, quarterly meetings with stakeholders (project management board, contractor, CSC, community representatives and other relevant authorities) to collect and contribute to the development and revision of the plan and strategy for environmental monitoring and overall environmental management. - Organizing the implementation of programs on measurement, sampling, and monitoring of environmental norms (every 3 months) during the environmental supervision contract period. - Develop training materials for specialized contents on environmental management and environmental monitoring to train contractors, construction supervision consultants and relevant staff of the PMU school and coordinator of the package) perform the task. - Through the PMU discuss with relevant stakeholders (when necessary) to find appropriate solutions for arising problems related to environmental sanitation. - Through the guidance of the PMU, establish and maintain close coordination with the CSC to ensure that relevant environmental regulations, environmental monitoring and mitigation measures, the reporting procedure should be clearly understood and incorporated into the CSC work plan. These procedures also include the recommendation of appropriate sanctions and the procedure for recommending the 	
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		<p>suspension of construction work at the site once the construction contractor fails to comply with the requirements for environmental safeguards in the test. public;</p> <ul style="list-style-type: none"> - Assist the CSC to prepare and implement emergency action plans where needed for environmental damage or problems encountered during construction; - Co-ordinate with the PMU and the construction supervision consultant to provide environmental management and minimize the impact necessary to the contractor; - Provide the necessary support to community representatives in the preparation and implementation of community-based environmental management plans. - Assist the PMU to establish and maintain an organizational structure for the environmental management system, monitoring and reporting obligations in coordination with the relevant local environmental management agencies; - Provide support and assistance for environmental training and capacity building programs upon request; - Provides general guidance on the environment required by the PMU to enhance the overall effectiveness of project implementation. 	
4	Contractors	<ul style="list-style-type: none"> - Being obliged to undertake mitigation measures and comply with approved EMP throughout the construction of the project. - throughout the construction of the project, being subjected to the strict supervision of PMU, CSC and EMC, environmental agencies 	- Being complied

		and local communities on EMP compliance	
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ADB = Asian Development Bank, CSC = construction supervision consultants, EMC = Environmental Monitoring Consultant, PMU = Project Management Unit, MONRE = Ministry of Natural Resources and Environment.

2.1.1. General evaluation of all site locations:

7. During the construction of the project from 2017 to completion at the end of 2019, the Investor/contractor has taken the approved mitigation measures at EMP.

- There was no complaint on Environmental Safeguard and Occupational Safety.
- There is not any accident
- Environmental issues on construction such as dust and dust are overcome by contractors after the reminders of PMU, CSC, EMC.

8. In the first 6 months of 2020, investors basically complied with environmental protection and labor safety for the operating stage. The environmental monitoring report for the first and second quarters of 2020 has been fully prepared to assess the quality of raw water input and water supply output of Nghi Hoa water plant

2.1.2. Evaluation of Nghi Hoa water supply plant

9. In the first 6 months of 2020, at the time of monitoring at the end of June 2020, Nghi Hoa water plant is conducting internal testing.

10. No serious environmental issues recorded

11. Environmental monitoring has been submitted to the end of the second quarter of 2020.

12. Training and propaganda for workers on HIV / AIDS and community health for workers on site.

13. The collection of domestic waste is still done daily by the service provider.

- Domestic solid wastes: estimated 1÷2kg/day of domestic solid wastes generated within the workers' construction site. The wastes include waste foods and plastic packs/bags, paper. This waste amount is collected into a 100L plastic bin set up at the camp area. Daily after working hours, Nghi Loc Green Environment JS Company's staff come to collect and transport to the Solid Waste Treatment Complex located in Nghi Yen commune of Nghi Loc District.

14. The toilet area of the operators in the factory is kept clean.

15. Workers already have labor protection equipment (shoes, helmets)

16. Staff in Nghi Hoa water plant raised vigilance, had the spirit of covid 19 prevention. All workers use full medical masks

17. As of the time of reporting, there has been no recorded complaint from local authorities and people on socio-environmental negative issues caused by the project.

Table 3: Summary of Compliance with EMP Requirements (Environmental Performance) at Nghi Hoa Water Treatment Plant

No.	EMP Requirements	Compliance / Non-Compliance (Comment or Reasons)	Issues for Further Action
1	Implementation arrangement		

No.	EMP Requirements	Compliance / Non-Compliance (Comment or Reasons)	Issues for Further Action
1.1	Disseminate safety principles to workers	Yes	No
1.2	License	Yes	No
1.3	Equipping work safety clothing for workers	Yes	No
1.4	First-aid kit at camps	Yes	No
1.5	Periodical health check for workers	Yes	No
1.6	Camp		
-	Clean water for workers	Yes	No
-	Sanitary and safe kitchen	Yes	No
-	Wastewater from camps is not stagnant	Yes	No
-	Self-decomposing latrines at camp	Yes	No
1.7	Mobilizing officers who are in charge of environmental safety to be at the site regularly to receive feedback from the community.	Yes	No
1.8	Project and contractor's signboard, (indicating name and phone number of site managers)	Yes	No
1.9	Relationship between site manager and local authority	Yes	No
1.10	Relationship between site manager, workers and local people	Yes	No
2	Mitigation measures		
2.1	Minimizing dust/exhaust fumes		
-	Watering sprinkling at specific locations in the dry season.	Yes	No
-	Fence/temporary cover for areas near local residences	Yes	No
-	Clean mud, soil on truck's wheels.	Yes	No
-	Tilting trucks/ means of transportation.	Yes	No
-	Trucks carrying sand, soil, stone are not overloaded.	Yes (There is no evidence of load violation recorded so far)	No
-	Clean the site after construction	Yes	No
-	Trucks/machines are maintained regularly	Yes	No
-	Forbidding on-site waste incineration, waste is removed within 24h	Yes	No
-	Keeping hazardous waste away from local residence	Yes	No
2.2	Reduce noise/vibration		
-	Equip safety clothing for workers	Yes (Workers operating Nghi Hoa water plant have been equipped with noise-proof earplugs)	No
-	Avoid construction which causes big noise before 5 A.M and after 10 P.M.	Yes	No

No.	EMP Requirements	Compliance / Non-Compliance (Comment or Reasons)	Issues for Further Action
-	Suitable construction measures, not causing ground settlement, break to houses and other constructions.	Yes	No
2.3	Mud from excavation, waste form house around.		
	Get agreement on area for discharging unused soil	Yes	No
-	Daily Collecting and discharging at yard agreed by locality.	Yes	No
-	Place dust bins at construction sites	Yes	No
-	Collecting waste and moved to agreed places, transported to and treated accordingly.	Yes	No
2.4	Pollution of surface water caused by construction activities and camps of workers		
-	There is gutter collecting wastewater/stormwater at the site leading to the main sewer of the district	Yes	No
-	There are self-decomposing latrines at camp	Yes	No
-	Keeping hazardous waste away from water sources.	Yes	No
2.5	Risks of being flooded temporarily in raining season when drainage system has not been completed.		
-	Preparing plan for dealing with emergency flood	Yes	No
2.6	Impacts on transportation		
-	Place warning signs / instructions	Yes	No
-	Constructing temporary bypasses where needed.	The project does not require this activity	
2.7	Public safety and health		
-	There are regulations, and training for workers on the regulations and communication to community	Yes	No
-	Assemble and maintain instructions, signs warning at construction sites.	Yes	No
2.8	Impact on business/socio-economic activities.		
-	Clean construction site every day after construction implementation.	Yes	No
-	Recovering breakdown of electricity/water supply/communication due to construction implementation.	N/a (There have been no breakdown of electricity/water supply/communication due to	No

No.	EMP Requirements	Compliance / Non-Compliance (Comment or Reasons)	Issues for Further Action
		construction implementation so far.)	
2.9	Fire prevention		
-	There is fire regulations/plan	Yes	No
-	Equip fire equipment at warehouse.	Yes	No
2.10	Social evils		
-	There are construction regulations, such as curfew, alcohol and gambling prohibition	Yes	No

2.1.3. Evaluation of the pumping station and Office building:

At the time of site supervision at the end of June 2020. EMC noticed :

18. The staff and managers of Cua Lo water supply company always raise vigilance, have the spirit of prevention of covid 19 epidemic. All employees use full medical masks

19. As of the time of supervision, no complaints have been recorded from authorities and people on negative social environmental issues caused by the project.

20. Daily cleaning work in the category of pumping stations and offices is ensured to be clean

The collection of domestic waste is still done daily by the service provider.

- Domestic solid wastes: estimated an amount of 1÷2kg/day of domestic solid wastes generated within the workers' construction site. The wastes include waste foods and plastic packs/bags, paper. This waste amount is collected into a 100L plastic bin set up at the camp area. Daily after working hours, Nghi Loc Green Environment JS Company's staff come to collect and transport to the Solid Waste Treatment Complex located in Nghi Yen commune of Nghi Loc District.
- The toilet area of the operators in the factory is kept clean.

21. Workers already have labor protection equipment (shoes, helmets).



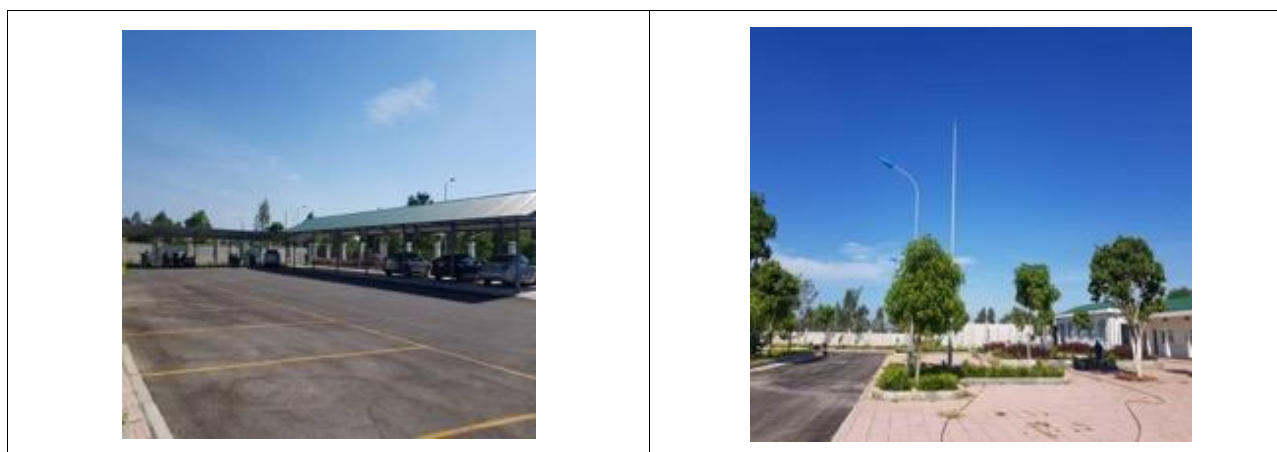


Figure 2. Photos of Pumping Station and Office Building (taken in June 2020).

Table 4: Summary of Compliance with EMP Requirements (Environmental Performance) at the Booster station and office site

No.	EMP Requirements	Compliance / Non-Compliance (Comment or Reasons)	Issues for Further Action
1	Implementation arrangement		
1.1	Disseminate safety principles to workers	Yes	No
1.2	License	Yes	No
1.3	Equipping work safety clothing for workers	Yes	
1.4	First-aid kit at camps	Yes	No
1.5	Periodical health check for workers	Yes	No
1.6	Camp		
-	Clean water for workers	Yes	No
-	Sanitary and safe kitchen	Yes	No
-	Wastewater from camps is not stagnant	Yes	No
-	Self-decomposing latrines at camp	Yes	No
1.7	Mobilizing officers who are in charge of environmental safety to be at the site regularly to receive feedback from the community	Yes	No
1.8	Project and contractor's signboard, (indicating name and phone number of site managers)	Yes	No
1.9	Relationship between site manager and local authority	Yes	No
1.10	Relationship between site manager, workers and local people	Yes	No
2	Mitigation measures	Yes	No
2.1	Minimizing dust/exhaust fumes		

No.	EMP Requirements	Compliance / Non-Compliance (Comment or Reasons)	Issues for Further Action
-	Watering sprinkling at specific locations in dry season.	Yes	No
-	Fence/temporary cover for areas near local residences	Yes	No
-	Clean mud, soil on truck's wheels.	Yes	No
-	Tilting trucks/ means of transportation.	Yes	No
-	Clean the site after construction	Yes	No
-	Trucks/machines are maintained regularly	Yes	No
-	Forbidding on-site waste incineration, waste is removed within 24h	Yes	No
-	Keeping hazardous waste away from local residence	Yes	No
2.2	Reduce noise/vibration	Yes	No
-	Equip safety clothing for workers		
-	Avoid construction which causes big noise before 5 A.M and after 10 P.M.	Yes	No
-	Suitable construction measures, not causing ground settlement, break to houses and other constructions.	Yes	No
2.3	Mud from excavation, waste form house around.		
-	Get agreement on area for discharging unused soil	Yes. Excavated materials are used to refill onsite.	No
-	Daily Collecting and discharging at yard agreed by locality.	Yes	No
-	Place dust bins at construction sites	Yes	No
-	Collecting waste and moved to agreed places, transported to and treated accordingly.	Yes	No
2.4	Pollution of surface water caused by construction activities and camps of workers	Yes	No
-	There is gutter collecting wastewater/stormwater at the site leading to the main sewer of the district	Yes (Works of booster pump stations and offices have completed the drainage system, connected to the	No

No.	EMP Requirements	Compliance / Non-Compliance (Comment or Reasons)	Issues for Further Action
		general drainage system of Cua Lo town)	
-	There are self-decomposing latrines at camp	Yes	No
-	Keeping hazardous waste away from water sources.	Yes	No
2.5	Risks of being flooded temporarily in raining season when drainage system has not been completed.		
-	Preparing plan for dealing with emergency flood	Yes	No
2.6	Impacts on transportation		
-	Place warning signs / instructions	Yes	No
-	Constructing temporary bypasses where needed.	The project does not require this activity	
-	Trucks carrying materials/wastes are not overloaded	Yes	No
2.7	Public safety and health		
-	There are regulations, and training for workers on the regulations and communication to community	Yes	No
-	Assemble and maintain instructions, signs warning at construction sites.	Yes	No
2.8	Impact on business/socio-economic activities.	Yes	No
-	Clean construction site every day after construction implementation.	Yes	No
-	Recovering breakdown of electricity/water supply/communication due to construction implementation.	Yes	No
2.9	Fire prevention		
-	There is fire regulations/plan	Yes	No
-	Equip fire equipment at warehouse.	Yes	No
2.10	Social evils		
-	There are construction regulations, such as curfew, alcohol and gambling prohibition	Yes	No

2.1.4. Assessment for transmission pipelines

22. Basically, the pipeline has been installed 100% in volume.

Table 5: Summary of Compliance with EMP Requirements (Environmental Performance) for transmission pipelines

No.	EMP Requirements	Comment or Reasons for Compliance / Non-Compliance	Issues for Further Action
1	Implementation arrangement		
1.1	Disseminate safety principles to workers	Yes	No
1.2	License	Yes	No
1.3	Equipping work safety clothing for workers	Yes	No
1.4	First-aid kit at camps	Yes	No
1.5	Periodical health check for workers	Yes	No
1.6	Camp		
-	Clean water for workers	Yes	No
-	Sanitary and safe kitchen	Yes	No
-	Wastewater from camps is not stagnant	Yes	No
-	Self-decomposing latrines at camp	Yes	No
1.7	Mobilizing officers who are in charge of environmental safety to be at the site regularly to receive feedback from the community	Yes	No
1.8	Project and contractor's signboard, (indicating name and phone number of site managers)	Yes	No
1.9	Relationship between site manager and local authority	Yes	No
1.10	Relationship between site manager, workers and local people	Yes	No
2	Mitigation measures	Yes	No
2.1	Minimizing dust/exhaust fumes		
-	Watering sprinkling at specific locations in dry season.	Yes	No

No.	EMP Requirements	Comment or Reasons for Compliance / Non-Compliance	Issues for Further Action
-	Fence/temporary cover for areas near local residences	Yes	No
-	Clean mud, soil on truck's wheels.	Yes	No
-	Tilting trucks/ means of transportation.	Yes	No
-	Clean the site after construction	Yes	No
-	Trucks/machines are maintained regularly	Yes	No
-	Forbidding on-site waste incineration, waste is removed within 24h	Yes	No
-	Keeping hazardous waste away from local residence	Yes	No
2.2	Reduce noise/vibration	Yes	No
-	Equip safety clothing for workers		
-	Avoid construction which causes big noise before 5 A.M and after 10 P.M.	Yes	No
-	Suitable construction measures, not causing ground settlement, break to houses and other constructions.	Yes	No
2.3	Mud from excavation, waste form house around.		
-	Get agreement on area for discharging unused soil	Yes	No
-	Daily Collecting and discharging at yard agreed by locality.	Yes	No
-	Place dust bins at construction sites	Yes	No
-	Collecting waste and moved to agreed places, transported to and treated accordingly.	Yes	No
2.4	Pollution of surface water caused by construction activities and camps of workers	Yes	No

No.	EMP Requirements	Comment or Reasons for Compliance / Non-Compliance	Issues for Further Action
-	There is gutter collecting wastewater/stormwater at the site leading to the main sewer of the district	Yes	No
-	There is self-decomposing latrines at camp	Yes	No
-	Keeping hazardous waste away from water sources.	Yes	No
2.5	Risks of being flooded temporarily in raining season when drainage system has not been completed.		
-	Preparing plan for dealing with emergency flood	Yes	No
2.6	Impacts on transportation		
-	Place warning signs / instructions	Yes	No
-	Constructing temporary bypasses where needed.	The project does not require this activity	
-	Trucks carrying materials/wastes are not overloaded	Yes	No
2.7	Public safety and health		
-	There is regulations, and training for workers on the regulations and communication to community	Yes	No
-	Assemble and maintain instructions, signs warning at construction sites.	Yes	No
2.8	Impact on business/socio-economic activities.	Yes	No
-	Clean construction site every day after construction implementation.	Yes	No
-	Recovering breakdown of electricity/water supply/communication due to construction implementation.	Yes	No
2.9	Fire prevention		

No.	EMP Requirements	Comment or Reasons for Compliance / Non-Compliance	Issues for Further Action
-	There is fire regulations/plan	Yes	No
-	Equip fire equipment at warehouse.	Yes	No
2.10	Social evils		
-	There is construction regulations, such as curfew, alcohol and gambling prohibition	Yes	No

2.2. Issues for Further Action

The environmental and labor safety issues that existed from previous monitoring periods have been completely solved. Contractors participating in the construction are strictly following it. No action is currently required.

Table 6: Issues for Further Action

Issue	Required Action	Responsibility and Timing	Resolution
Old Issues from Previous Reports			
Nghi Hoa Water Treatment Plant Site			
None	-	-	-
Pump Station and Office Building Site			
None	-	-	- -
Transmission pipelines			
None	-	-	- -
New Issues from This Report			
Nghi Hoa Water Treatment Plant Site			
None	-	-	-
Pump Station and Office Building Site			
None	-	-	-
Transmission pipelines			
None		-	

2.3. Other activities (Environmental sampling)

23. Under the program of periodic environmental monitoring for the operation phase of water supply, in order to comply with the laws of the Government of Vietnam. Cua Lo Water Supply Joint Stock Company has cooperated with the Center for Disease Control of Nghe An province to take samples, measure, analyze and prepare water quality reports.

24. Periodic monitoring of clean water quality to promptly warn of unusual developments or risks of pollution of clean water sources, to help project owners and authorities to take preventive measures and proactively respond with possible environmental problems during water supply operations.

2.3.1. ADB approved sampling plan

25. Table 7 shows the environmental effect monitoring plan in the IEE¹ approved by ADB.

Table 7: Environmental sampling plan during the Commissioning Phase

Mitigation Measures	Monitoring parameters	Location	Method	Frequency
Clean water quality	Flavor, Color, Temperature, pH, Ammonium, Nitrite, Nitrate, Chloride, Total Iron, Hardness, Manganese, Pb, As, Cyanide, Copper,	- Water plant in Nghi Huong ward, Cua Lo town	Take water sample for analysis and compare result with related Vietnam Standards (QCVN 01/2009/BYT)	Every quarter in 18 months

¹<https://www.adb.org/projects/documents/viet-nam-water-sector-investment-program-cua-lo-ws-iee>

Mitigation Measures	Monitoring parameters	Location	Method	Frequency
	Turbidity, SO ₄ ²⁻ Content, Permanganate Index, TDS, Zinc, Cadmium, Mercury, Excess Chlorine, Fluoride, E.Coli, Coliforms			

(Results of analyzing clean water samples in quarter 1st and 2st, 2020 in Appendix 3.)

Environmental Quality Analytical Results

a) Analysis Results of surface water.

NS

Table 8. Analysis Results of surface water – 1st & 2st quarter of 2020

No	Parameter	Unit	Results					Parameter	Unit	Results	GHC P (allowable limit)
			1 st quarter of 2020			2 st quarter of 2020				2 st quarter of 2020	
			NS1	NS2	NS3	NS4	NS5			NS6	
1	Flavours	-	No strange taste	No strange taste	No strange taste	No strange taste	No strange taste	Flavours	-	No strange taste	No strange taste
2	Color temperature	TCU	0,0	0,0	0,0	0,0	0,0	Color temperature	TCU	0,0	15
3	pH	mg/l	6.92	7.01	6.93	7,38	7.16	pH	mg/l	7,6	6,5 – 8,5
4	NO ₃ ⁻	mg/l	KPH(<0.002)	KPH(<0.002)	KPH(<0.002)	KPH(<0.002)	KPH(<0.002)	NH ₄ ⁺	mg/l	KPH(<0.01)	3
5	NO ₂ ⁻	mg/l	1.847	4.606	3.281	2,504	1.833	NO ₃ ⁻	mg/l	KPH(<0.002)	3
6	Cl ⁻	mg/l	81,65	81,65	60,71	50,77	41.89	NO ₂ ⁻	mg/l	0.916	50
7	Fe3 ⁺	mg/l	KPH(<0.017)	KPH(<0.017)	KPH(<0.017)	KPH(<0.017)	KPH(<0.017)	Cl ⁻	mg/l	48,99	250
8	Hardness	mg/l	62	65	50	72	70	Fe3 ⁺	mg/l	KPH(<0.0017)	0,3
9	Mn	mg/l	KPH(<0.014)	KPH(<0.014)	0,085	KPH(<0.014)	KPH(<0.014)	Hardness	mg/l	87	300

10	Độ đục	mg/l	0,12	0,11	0,25	0,19	0,19	Mn	mg/l	KPH(<0.014)	0,3
11	SO ₄ ²⁻	mg/l	11,04	11,367	21,814	KPH(<0.017)	14.767	Pb	mg/l	<0.002)	0,01
12	Pemangana t Index	mg/l	1,92	1,92	1,52	1,12	0,96	As	mg/l	KPH(<0.0006)	0,01
13	Clo dư	mg/l	0,5	0,5	0,78	0,91	0.34	Xyanua	mg/l	KPH(<0.0015)	0,07
14	E. Coli	SL / 100ml	<1	<1	<1	<1	<1	Cu	mg/l	KPH(<0.03)	1
15	Coliform	SL / 100ml	<1	<1	<1	<1	<1	Độ đục	mg/l	0.16	2
16								SO ₄ ²⁻	mg/l	1.479	250
17								Pemangana t Index	mg/l	1,44	2
18								TDS	mg/l	149,98	1000
19								Zn	mg/l	KPH(<0.014)	3
20								Cd	mg/l	KPH(<0.0003)	0.003
21								Hg	mg/l	KPH(<0.0005)	0.001
22								Clo dư	mg/l	0.5	0,3 - 0.5
23								Florua	mg/l	0.24	1,5
24								E. coli	SL / 100ml	<1	0
25								Coliform	SL / 100ml	<1	0

(Source: Center for Disease Control in Nghe An province, June 2020)

Notes: GHCP: QCVN 01: 2009 / BYT: National technical regulation on drinking water quality.

- + NS1: Water plant in Nghi Huong ward, Cua Lo town
- + NS2: Water plant in Nghi Huong ward, Cua Lo town
- + NS3: Water plant in Nghi Huong ward, Cua Lo town
- + NS4: Water plant in Nghi Huong ward, Cua Lo town
- + NS5: Water plant in Nghi Huong ward, Cua Lo town
- + NS6: Water plant in Nghi Huong ward, Cua Lo town

26. **Comment:** Through measurement and analysis of 6 finished clean water samples at the Nghi Huong water plant, it shows that the experimental parameters in the first 06 months of 2020 are within the permitted limits at QCVN 01: 2009 / BYT. However, at the time of March and April 2020, the residual Clo content is 03 times higher than the permitted standard. Technical measures have entirely handled this problem.

3 Occupational, Health and Safety (OHS) Performance Monitoring

3.1 OHS for worker

27. Up to now, the Investor has fully complied with the work of health protection for workers and engineers operating at Nghi Hoa water plant such as: equipped with medical cabinets and protective gear, noise-canceling buttons, hats. Workers' health is generally guaranteed.

Table 9: Issues on OHS for worker

Issue	Required Action	Responsibility and Timing	Resolution
Old Issues from Previous Reports			
Nghi Hoa Water Treatment Plant Site			
None	-	-	
Pump Station and Office Building Site			
None		-	
Transmission pipelines			
None		-	
New Issues from This Report			
Nghi Hoa Water Treatment Plant Site			
None		-	
Pump Station and Office Building Site			
None		-	
Transmission pipelines			
None		-	

3.2 Public Safety

In the first 6 months of 2020, the project has gone into operation, so there is no activity affecting the community.

Table 10: Issues on Public Safety

Issue	Required Action	Responsibility and Timing	Resolution
Old Issues from Previous Reports			
Nghi Hoa Water Treatment Plant Site			
None		-	
Pump Station and Office Building Site			
None		-	
Transmission pipelines			
None		-	
New Issues from This Report			
Nghi Hoa Water Treatment Plant Site			
None			
Pump Station and Office Building Site			
None			
Transmission pipelines			
None			

4 Information Disclosure and Socialization including Capability Building

28. During field monitoring from 28th to 30th June 2020, the consultant also consulted some project area residents on environmental issues that occurred during the construction process of the contractor.

Table 11: Residents' Feedback on the Project

No.	Projects	Residents' feedbacks	Mitigation measures
1	WTP	- Water supply operation at Nghi Huong water plant is very good, does not affect our health	- Continual CSC's and PMU's strict supervision of sanitation and environmental safeguards

5 Grievance Redress Mechanism

To continue for the next upgrade phase of the project. Environmental and social monitoring consultants will update the information of new construction contractors for the new period. Currently, complaints about water quality can be sent to the Cua Lo Water Supply Joint Stock Company's customer care department. Address: Block Tran Phu, Nghi Huong Ward, Cua Lo Town, Nghe An. Phone: 0383943177.

29. During implementation, from January 2020 to June 2020, there were no complaints from local authorities and the public about negative impacts on the project's water intake.

Table 12: Grievances Received

Type of Grievance	Details (Date, person, address, contact details, Etc.)	Required Action, Responsibility and Timing	Resolution
Old Issues from Previous Reports			
None			
New Issues from This Report			
None	-	-	-

6 Resettlement, Social safeguards and Gender

6.1 Summary of impacts by project

30. As above mentioned, The subproject physical works comprise the construction of (i) the water treatment plant (WTP) with the capacity of 10,000 m³ per day-night located at Nghia Hoa Commune, Nghi Loc District; (ii) booster pumping station and office area at Nghi Huong Ward, Cua Lo Town; and (iii) transmission, distribution, and service pipelines. Based on the findings indicated in the DDRs which have been prepared and approved for the project as regulations of ADB SPS 2009. The impacts of project implementation are described as below:

(i) Permanent Impacts.

31. The project implementation has permanent impacted on total of 9.45 ha of land being managed by Nghi Hoa commune and Nghi Huong ward of Cua Lo town. In addition, the project has also impacted on crops, trees and structures of 32 households who were using land of Nghi Hoa commune and Nghi Huong ward as local authorities had allowed these households to temporarily plant trees and fish farming on public land. No poor or other vulnerable HH were found among the AHs.

(ii) Temporary Impacts.

32. During the construction of the distribution pipes under the NA-CL-CW1/ICB package passing through Nghi Thu ward (belonging to Highway 46 from km2 ÷ km2 + 800) and Nghi Quang commune (belonging to provincial road 536 from km 3 ÷ km4 + 315), Cua Lo town, the project activities have temporary impacted on total of 4,629.46 m² of agricultural land belonging to 61 households. Besides, the project has also impacted on 4,597.5 m² of standing trees and crops of these 61 households including: 1,663.5m² of regular rice; 1,061.4 m² of sticky rice, 1,846.6m² of morning glory, 26m² of tomato; 104 banana trees; 3 jackfruit trees; 68 edible canna trees; 54 tobacco plants; 3 guava trees; 2 mandarin trees, 10 bamboo trees. The summary of impacts on trees and crops by project are described in below table.

Table 13. The impacts on trees and crops

No	Commune/Ward	Types of trees and crops	Areas (m ²)	Number of trees (Tree)
1	Nghi Quang	Morning glory	1,204.0	
		regular rice	1,663.5	
		Sticky rice	1,061.4	
		Tomato	26.0	
		Banana		100
		Jackfruit		3
		Edible canna		68
		Tobacco trees		54

No	Commune/Ward	Types of trees and crops	Areas (m2)	Number of trees (Tree)
		Guava		3
		Mandarin		2
		Bamboo		10
2	Nghị Thu	Morning glory	306.6	
		Banana		4
		Morning glory	336.0	
		regular rice		
		Sticky rice		
	Total		4,597.5	244.0

Source: DDR has been approved for the project in March 2020

6.2 Status of social safeguard documents

33. According to the results found during the project preparation (PPTA), the project did not have land acquisition activities, therefore, the RP was not required for the project, but a Due Diligence Report (DDR) was required for the land areas that have been acquired for project implementation in anticipation with ADB supports. Accordingly, a DDR was prepared and approved for the project in September 2014.

34. After the technical detailed design was approved in 2016 for the project, another DDR was prepared in accordance with regulations of ADB SPS 2009 and this DDR was also approved by ADB in June 2017.

35. During the construction and installation of distribution pipelines for the project, construction activities have temporarily affected on 4,629.46 m2 of agriculture land of 61 households, but the implementation of compensation and support payments did not comply with regulations of the project as well as ADB's SPS 2009, therefore, according to project policy, a DDR was prepared for the project to ensure that compensation payments and assistance were applied in compliance with the project policy. This report was approved by ADB in March 2020.

36. In addition, during the project implementation, monitoring reports on the social and environment were prepared according to the requirements of the project and all these documents have been approved by ADB, specifically including:

- + Environment and social monitoring report for the last 6 months of 2017.
- + Environment and social monitoring report for the first 6 months of 2018
- + Environment and social monitoring report for the last 6 months of 2018.
- + Environment and social monitoring report for the first 6 months of 2019.
- + Environment and social monitoring report for the last 6 months of 2019.

6.3 Consultation and project information disclosures

37. Since at the beginning of the project in 2014, the representatives of Cua Lo Water Supply Joint Stock Company and the Consultant presented the scope of the subproject and implementation schedule through many consultation meetings with the local people and authorities. In the meeting, the representatives discussed with the local communities about environmental impacts, temporary disturbances and nuisances to people's lives during construction period. The Consultant has informed the local communities and authorities about the measures taken to avoid and/or mitigate impacts during the project implementation. The rights and responsibilities of the parties, grievance redress mechanism, and monitoring activities were also presented.

38. Regarding the land areas where have been acquired in anticipation with ADB supports, according to findings of DDRs, the information disclosure and public consultation activities were organized in 2012. The results showed that 100% of affected households knew about the project implementation and they fully understood about the project and its compensation policy. All AHs have participated in all consultative meetings as well as all steps of land acquisition implementation done by CARB/CPCs. The meeting participants were also provided with a project information booklet (PIB). All the contents of public consultative meetings were recorded in minutes. Consulted people stated that the provided information was clear, easy to understand, useful and transparent.

39. Regarding the temporary impacts, the public consultation with 61 affected households was conducted on May 15-17, 2018 by holding a meeting at the People's Committee of Nghi Thu ward and People's Committee of Nghi Quang commune, Cua Lo town. All the contents of public consultative meetings were recorded in minutes. Consulted people stated that the provided information was clear, easy to understand, useful and transparent.

40. During this reporting period, due to the impact of the Covid-19 epidemic, there was almost no consultation or engagement with local people in the project area except for dissemination of information on DDR report after it was approved by ADB in March 2020 for temporary impacts on productive land of 61 households in Nghi Quang and Nghi Thu communes.

6.4 DMS process

41. As the results of DDRs in 2014 and 2017, the resettlement activities started in early 2012. Accordingly, DMS was completed in December 2012 by LFDC. All affected households were informed about the planning of DMS and all of them participated in the DMS process. The affected households were provided DMS self-enumeration form to fill-up. The form that was completed by each household presented all the affected lands and assets of the household and with signature of household head. The DMS team of the LFDCs conducted the detailed measurement survey (DMS) after that to verify the impacts for the households with participations of the heads of the households, village leaders, representatives from Nine communes and mass organizations. The agreed DMS records were with signatures of the affected households and enumerators 100% affected HHs are provided the copy of of the DMS after signing on the DMS minutes done by the LFDCs. The result of DMS of households were publicly posted at the office of communes as the regulations.

42. For temporary impacts, all affected land and non-land assets are determined and agreed upon the Contractor and affected households in May 2018. According to the results of the DDR in Mar 2020, 100% of the households with temporarily affected land had no any comments about the results of inventory indicated in the working minutes between the contractor and the affected households.

6.5 Preparation of compensation plans and payment

43. As above mentioned, the project has not permanent impacted on land of households, however, the project has impacted on trees, crops and structures of households therefore these households were entitled to get compensation for non – land assets. According to findings of DDR, the compensation prices used for trees, crops and structures were the latest and the highest issued by Nghe An PPC and all 32 AHs have received compensation for affected non – land assets since 2013. These households had no any complaint about the compensation payment. (Please see more details in the DDR approved by ADB in 2014 and May 2017 for the project).

44. Regarding the temporary impacts on 61 households, according to results of DDR, the compensation payment for affected households were carried out in the form of direct negotiation with AHs on compensation unit prices to ensure replacement costs for affected assets and these agreements were recorded in the minutes (please refer to DDRs of this project for more details).

45. In fact, the applied compensation rates for affected trees and crops are in compliance with the Decision No. 74/2017/QĐ-UBND of Nghe An Provincial People's Committee, dated December 4, 2017, promulgating the price list of compensation for aquatic plants and animals and relocation of graves in the area of Nghe An province and at market rates. Regarding compensation for crops and trees, the rates applied were equivalent to the output value calculated according to the productivity of the highest crop in the preceding three years for annual crops or the current value calculated at local market prices at the time of land acquisition.

46. These rates have been appraised by the Department of Agriculture and Rural Development. Therefore, the rates applied are assessed to meet market rates in the locality. Moreover, the rates have been consulted with the affected households during consultation and the households have agreed with the compensation rates for their affected trees and crops. In May 2018, all 61 AHs have received fully compensation and assistances with an amount of VND 25,759,070 and all 61 households had no any complaint about the compensation payment. (Please see more details in the DDR approved by ADB in March 2020).

6.6 Resettlement and site clearance.

47. The site clearance to implement construction of all items of the project has been completed in the early 2019.

6.7 Income restoration program.

48. Due to project has not permanent impacted on productive land of households except impacted on trees and crops, therefore, the project did not affect to livelihood and income of the households. As findings of DDRs show that, Most of affected households have agricultural land in other non-affected places, average land area is around 2,800 m²/HH. However, the income of households doesn't depend much on agricultural production. As they live in a tourist area, they can earn additional income from different jobs such as trading services and small business activity.

6.8 Grievance.

49. A grievance redress and mechanism (GRM) has been established for the project according to project policy and regulations of Vietnam on complaint and grievance redress. The GRM was established with representatives from related agencies and also disclosed to all AHs and local people in project area.

50. As of June 2020, no complaints from local residents and authorities were recorded for negative environmental and social impacts due to project construction in three project categories including: Nghi Hoa water plant, Nghi Huong booster pump station and transmission pipeline

51. For construction of transmission pipeline: As stated in the previous report, the construction of the clean water transmission pipeline only temporarily affects people. Up to now, 100% of work has been completed. Work on return the premises is being carried out smoothly.

7 Conclusion

52. By the time of reporting (June 30th, 2020), basically, the project's EMPs have been implemented & compliance well by the contractors and PMU.

53. Risks in the process of water supply operation have been timely technically adjusted, overcome and repaired by investors to meet standards on quality of domestic water.

54. The implementation progress for land acquisition is being implemented according to the project policy and land law of Viet Nam. All affected households have received fully compensation and assistance and AHs have no any complaint relating to compensation and land acquisition.

55. The income of AHs has not been significantly affected. All affected households have other source of incomes especially due to the proximity of the tourist area around Cua Lo beach.

Appendix 1: Results of analysis of environmental samples during the construction phase

Sample analysis results in January, quarter 1, 2020 Laboratory: Center for disease control in Nghe An province



SỞ Y TẾ NGHỆ AN
NGHỆ AN DEPARTMENT OF HEALTH
TRUNG TÂM KIỂM SOÁT BỆNH TẬT
CENTERS FOR DISEASE CONTROL (CDC)

Địa chỉ/Address: 140 Đường Lê Hồng Phong, Thành phố Vinh, Tỉnh Nghệ An/
140 Le Hong Phong Street, Vinh Town, Nghe An Province
ĐT/Tel: 02383835810/02383593071
Email: xetnghiemdnpa@gmail.com

VILAS 900

PHIẾU KẾT QUẢ THỬ NGHIỆM
TEST REPORT

Số/No.: 61 /PKN-YTDP

1. Tên mẫu/Name of sample: Nước sạch nhà máy nước Mã số/Code: 200119/61
2. Tên/địa chỉ khách hàng Name/Address of customer: Công ty cổ phần cấp nước Cửa Lò
Khối 1 – Phường Nghi Tân – Thị xã Cửa Lò
3. Mô tả mẫu/Description: 1500mL/chai nhựa kin x 02 Chai
4. Ngày nhận mẫu/Date of receiving: 15/01/2020
5. Người lấy mẫu/Sample taking: Nguyễn Minh Trí
6. Kết quả thử nghiệm/Test result:

TT No.	Tên chỉ tiêu Characteristic	Đơn vị Unit	Phương pháp thử Test method	Giới hạn tối đa cho phép Regular limit (QC 01/2009/BYT)	Kết quả Result
1	Mùi vị		Cảm quan	Không có mùi vị lạ	Không có mùi vị lạ
2	Độ màu	TCU	TCVN 6185 - 2015	15	0,0
3	pH*		TCVN 6492:2011	6,5 – 8,5	6,92
4	Nitrit (NO ₂ ⁻)*	mg/L	TCVN 6178-1996	3	KPH(<0.002)
5	Nitrat (NO ₃ ⁻)*	mg/L	TCVN 6180-1996	50	1,847
6	Clorua (Cl ⁻)*	mg/L	TCVN 6194-1996	250	81,65
7	Sắt tổng số (Fe ³⁺)*	mg/L	SMEWW 3500B Fe 2017	0,3	KPH(<0.017)
8	Độ cứng*	mg/L	TCVN 6224 -1996	300	62
9	Mangan*	mg/L	SMEWW 3111B-Mn 2017	0,3	KPH(<0.014)
10	Độ đục	NTU	HANNA – HI 98703	2	0,12
11	Hàm lượng SO ₄ ²⁻	mg/L	TCVN 6200-1996	250	11,040
12	Chỉ số Pemanganat*	mg/L	TCVN 6186-1996	2	1,92
13	Clo dư	mg/L	HANNA- HI 96701	0,3 - 0,5	0,5
14	Coliforms*	CFU/ 100 mL	TCVN 6187-1:2009	0	<1
15	E. coli*	CFU/ 100 mL	TCVN 6187-1:2009	0	<1

Ghi chú: KPH: Không phát hiện (nghĩa là dưới ngưỡng phát hiện của phương pháp)
<1: Nghĩa là dưới ngưỡng phát hiện của phương pháp

Vinh, ngày 31 tháng 01 năm 2020

PHÒNG KIỂM NGHIỆM

LAB

HOA-CHEMICAL

VI SINH-MICROBIOLOGY

Chữ ký

Cao Thủy Trinh

Chữ ký

Hồ Thị Lan Mai

P. GIÁM ĐỐC

VICE DIRECTOR



Phạm Đình Du

- 1 Các kết quả thử nghiệm ghi trong phiếu này chỉ có giá trị đối với mẫu thử nghiệm/Test result are valid for the submitted sample(s) only.
2 Không được trích dẫn một phần hoặc toàn bộ kết quả thử nghiệm nếu không có sự đồng ý bằng văn bản của Trung tâm y tế dự phòng Nghệ An /
The test report must not be reproduced without the written approval of Nghệ An Center for Preventive Medicine.
3 Tên mẫu, tên khách hàng được ghi theo yêu cầu của mọi ghi mẫu/ Name of sample(s) and customer are written as customer's request.
4 Phiếu kết quả này được làm thành 03 bản: 02 bản trả cho khách hàng, 01 bản lưu tại Khoa Xét Nghiệm/
The test result are printed in 03 documents. 02 document is given to customer, 01 document is stored at Testing Department
5* Chu tiêu được công nhận ISO/IEC 17025:2017. *Tests are accredited ISO/IEC 17025:2017
6** Chu tiêu sử dụng nhà thầu phụ **Tests are use subcontractors

BM.7.8..01

Lần ban hành: 1

Soát xét: 1

Sample analysis results in February - Quarter 1 - 2020
Laboratory: Center for disease control in Nghe An province




SỞ Y TẾ NGHỆ AN
NGHE AN DEPARTMENT OF HEALTH
TRUNG TÂM KIỂM SOÁT BỆNH TẬT
CENTERS FOR DISEASE CONTROL (CDC)
Địa chỉ/Address: 140 Đường Lê Hồng Phong, Thành phố Vinh, Tỉnh Nghệ An/
140 Le Hong Phong Street, Vinh Town, Nghe An Province
ĐT/Tel: 02383835810/02383593071
Email: xetnghiemdnpna@gmail.com

VILAS 900

PHIẾU KẾT QUẢ THỬ NGHIỆM
TEST REPORT

Số/No.: 96/PKN-YTDP

1. Tên mẫu/Name of sample: Nước sạch nhà máy nước Mã số/Code: 200208/23
2. Tên/địa chỉ khách hàng Name/Address of customer: Công ty cổ phần cấp nước Cửa Lò
Khối 1 – Phường Nghi Tân – Thị xã Cửa Lò
3. Mô tả mẫu/Description: 1500mL/chai nhựa kín x 02 Chai
4. Ngày nhận mẫu/Date of receiving: 14/02/2020
5. Người lấy mẫu/Sample taking: Nguyễn Minh Trí
6. Kết quả thử nghiệm/Test result:

TT No.	Tên chỉ tiêu Characteristic	Đơn vị Unit	Phương pháp thử Test method	Giới hạn tối đa cho phép Regular limit (QC 01/2009/BYT)	Kết quả Result
1	Mùi vị		Cảm quan	Không có mùi vị lạ	Không có mùi vị lạ
2	Độ màu	TCU	TCVN 6185 - 2015	15	0,0
3	pH*		TCVN 6492:2011	6,5 – 8,5	7,01
4	Nitrit (NO ₂ ⁻)*	mg/L	TCVN 6178-1996	3	KPH(<0,002)
5	Nitrat (NO ₃ ⁻)*	mg/L	TCVN 6180-1996	50	4,606
6	Clorua (Cl ⁻)*	mg/L	TCVN 6194-1996	250	81,65
7	Sắt tổng số (Fe ³⁺)*	mg/L	SMEWW 3500B Fe 2017	0,3	KPH(<0,017)
8	Độ cứng*	mg/L	TCVN 6224 -1996	300	65
9	Mangan*	mg/L	SMEWW 3111B-Mn 2017	0,3	KPH(<0,014)
10	Độ đục	NTU	HANNA – HI 98703	2	0,11
11	Hàm lượng SO ₄ ²⁻	mg/L	TCVN 6200-1996	250	11,367
12	Chỉ số Pemanganat*	mg/L	TCVN 6186-1996	2	1,92
13	Clo dư	mg/L	HANNA- HI 96701	0,3 - 0,5	0,5
14	Coliforms*	CFU/ 100 mL	TCVN 6187-1:2019	0	<1
15	E. coli*	CFU/ 100 mL	TCVN 6187-1:2019	0	<1

Ghi chú: KPH: Không phát hiện (nghĩa là dưới ngưỡng phát hiện của phương pháp)
<1: Nghĩa là dưới ngưỡng phát hiện của phương pháp

Vinh, ngày 28 tháng 02 năm 2020

PHÒNG KIỂM NGHIỆM
LAB

HOA-CHEMICAL **VI SINH-MICROBIOLOGY**


Cao Thúy Trinh


Hồ Thị Lan Mai

GIÁM ĐỐC
LIFE DIRECTOR




*** Phạm Đình Du**

1. Các kết quả thử nghiệm ghi trong phiếu này chỉ có giá trị đối với mẫu thử nghiệm/Test result are valid for the submitted sample(s) only.
2. Không được trích dẫn một phần phiếu kết quả thử nghiệm nếu không có sự đồng ý bằng văn bản của Trung tâm y tế dự phòng Nghệ An /
The test report must not be reproduced without the written approval of Nghe An Center for Preventive Medicine.
3. Tên mẫu, tên khách hàng được ghi theo yêu cầu của nơi gửi mẫu/ Name of sample(s) and customer are written as customer's request.
4. Phiếu kết quả này được làm thành 03 bản: 02 bản trả cho khách hàng, 01 bản lưu tại Khoa Xét Nghiệm/
The test result are printed in 03 documents. 02 document is given to customer, 01 document is stored at Testing Department
5* Chu tiêu được công nhận ISO/IEC 17025:2017. *Tests are accredited ISO/IEC 17025:2017
6** Chu tiêu sử dụng nhà thầu phụ. **Tests are use subcontractors

BM.7.8.01 Lần ban hành: 1 Soát xét: 1

Sample analysis results in March - Quarter 1 - 2020

Laboratory: Center for disease control in Nghe An province



TRUNG TÂM KIỂM SOÁT BỆNH TẬT
CENTERS FOR DISEASE CONTROL (CDC)

Địa chỉ/Address: 140 Đường Lê Hồng Phong, Thành phố Vinh, Tỉnh Nghệ An/
140 Le Hong Phong Street, Vinh Town, Nghe An Province

ĐT/Tel: 02383835810/02383593071
Email: xetnghiemdpna@gmail.com

PHIẾU KẾT QUẢ THỬ NGHIỆM
TEST REPORT

Số/No.: 250/PKN-KSBT

1. Tên mẫu/Name of sample: Nước máy Mã số/Code: 200324/94

2. Tên/địa chỉ khách hàng Name/Address of customer: Công ty Cổ phần cấp nước Cửa Lò
Khối Tân Phú – P. Nghi Hương – TX Cửa Lò – Nghệ An

3. Mô tả mẫu/Description: 500mL/chai x 04 chai

4. Ngày nhận mẫu/Date of receiving: 25/3/2020

5. Người lấy mẫu/Sample taking: Nguyễn Minh Trí


6. Kết quả thử nghiệm/Test result:

TT No.	Tên chỉ tiêu Characteristic	Đơn vị Unit	Phương pháp thử Test method	Giới hạn tối đa cho phép Regular limit (QC 01/2009/BYT)	Kết quả Result
1	Mùi vị		Cảm quan	Không có mùi vị lạ	Không có mùi vị lạ
2	Độ màu	TCU	TCVN 6185 - 2015	15	0,0
3	pH*		TCVN 6492:2011	6,5 – 8,5	6,93
4	Nitrit (NO ₂ ⁻)*	mg/L	TCVN 6178-1996	3	KPH(<0,002)
5	Nitrat (NO ₃ ⁻)*	mg/L	TCVN 6180-1996	50	3,281
6	Clorua (Cl ⁻)*	mg/L	TCVN 6194-1996	250	60,71
7	Sắt tổng số (Fe ²⁺)*	mg/L	SMEWW 3500B Fe 2017	0,3	KPH(<0,017)
8	Độ cứng*	mg/L	TCVN 6224 -1996	300	50
9	Mangan*	mg/L	SMEWW 3111B-Mn 2017	0,3	0,085
10	Độ đục	NTU	HANNA – HI 98703	2	0,25
11	Hàm lượng SO ₄ ²⁻	mg/L	TCVN 6200-1996	250	21,814
12	Chỉ số Pemanganat*	mg/L	TCVN 6186-1996	2	1,52
13	Clo dư	mg/L	HANNA- HI 96701	0,3 - 0,5	0,78
14	E. coli*	SL/ 100 mL	TCVN 6187-1:2019	0	<1
15	Coliforms*	SL/ 100 mL	TCVN 6187-1:2019	0	<1

Ghi chú: KPH: Không phát hiện (nghĩa là dưới ngưỡng phát hiện của phương pháp)
<1: Nghĩa là dưới ngưỡng phát hiện của phương pháp


PHÒNG KIỂM NGHIỆM
LAB

HÓA-CHEMICAL



Dương Thị Thảo

VI SINH-MICROBIOLOGY




Hồ Thị Lan Mai

Vinh, ngày 01 tháng 4 năm 2020

P. TRƯỞNG KHOA

VICE. HEAD OF DEPARTMENT




Cao Thủy Trinh

KIỂM SOÁT BỆNH TẬT

VIỆN KIỂM SOÁT BỆNH TẬT

TRUNG TÂM KIỂM SOÁT BỆNH TẬT

NGHỆ AN



Phạm Đình Du

1 Các kết quả thử nghiệm ghi trong phiếu này chỉ có giá trị đối với mẫu thử nghiệm/Test result are valid for the submitted sample(s) only.

2 Không được trích dẫn một phần hoặc toàn bộ kết quả thử nghiệm nếu không có sự đồng ý bằng văn bản của Trung tâm kiểm soát bệnh tật Nghệ An /

3 Tên mẫu, tên khách hàng được ghi theo yêu cầu của văn xin gửi mẫu/ Name of sample(s) and customer are written as customer's request.

4 Phiếu kết quả này được in thành 03 bản: 02 bản trả cho khách hàng, 01 bản lưu tại Khoa Xét Nghiệm/

5* Các tài liệu được công nhận ISO/IEC 17025:2017**Tests are accredited ISO/IEC 17025:2017



6** Chỉ tiêu sử dụng nhà thầu phụ**Tests are not subcontractors

BM.7.8.01

Lần ban hành: 1

Soát xét: 1

Sample analysis results April - Quarter 2 - 2020
Laboratory: Center for disease control in Nghe An province

SỞ Y TẾ NGHỆ AN
NGHE AN DEPARTMENT OF HEALTH
TRUNG TÂM KIỂM SOÁT BỆNH TẬT
CENTERS FOR DISEASE CONTROL (CDC)
Địa chỉ/Address: 140 Đường Lê Hồng Phong, Thành phố Vinh, Tỉnh Nghệ An/
140 Le Hong Phong Street, Vinh Town, Nghe An Province
ĐT/Tel: 02383835810/02383593071
Email: xetnghiemdpna@gmail.com

VILAS 900

PHIẾU KẾT QUẢ THỬ NGHIỆM
TEST REPORT

Số/No.: 329/PKN-KSBT

1. Tên mẫu/Name of sample: Nước máy Mã số/Code: 200415/60
2. Tên/địa chỉ khách hàng Name/Address of customer: Công ty Cổ phần cấp nước Cửa Lò
Khối Tân Phú – P. Nghi Hương – TX Cửa Lò – Nghệ An
3. Mô tả mẫu/Description: 500mL/chai x 03 chai
4. Ngày nhận mẫu/Date of receiving: 24/4/2020
5. Người lấy mẫu/Sample taking: Nguyễn Minh Trí
6. Kết quả thử nghiệm/Test result:


TT No.	Tên chỉ tiêu Characteristic	Đơn vị Unit	Phương pháp thử Test method	Giới hạn tối đa cho phép Regular limit (QC 01/2009/BYT)	Kết quả Result
1	Mùi vị		Cảm quan	Không có mùi vị lạ	Không có mùi vị lạ
2	Độ màu	TCU	TCVN 6185 - 2015	15	0,0
3	pH*		TCVN 6492:2011	6,5 – 8,5	7,38
4	Nitrit (NO ₂ ⁻)*	mg/L	TCVN 6178-1996	3	KPH(<0,002)
5	Nitrat (NO ₃ ⁻)*	mg/L	TCVN 6180-1996	50	2,504
6	Clorua (Cl ⁻)*	mg/L	TCVN 6194-1996	250	50,77
7	Sắt tổng số (Fe ³⁺)*	mg/L	SMEWW 3500B Fe 2017	0,3	KPH(<0,017)
8	Độ cứng*	mg/L	TCVN 6224 - 1996	300	72
9	Mangan*	mg/L	SMEWW 3111B-Mn 2017	0,3	KPH(<0,014)
10	Độ đục	NTU	HANNA – HI 98703	2	0,19
11	Hàm lượng SO ₄ ²⁻	mg/L	TCVN 6200-1996	250	KPH(<0,017)
12	Chỉ số Pemanganat*	mg/L	TCVN 6186-1996	2	1,12
13	Clo dư	mg/L	HANNA- HI 96701	0,3 - 0,5	0,91
14	E. coli*	SL/ 100 mL	TCVN 6187-1:2019	0	<1
15	Coliforms*	SL/ 100 mL	TCVN 6187-1:2019	0	<1


Ghi chú: KPH: Không phát hiện (nghĩa là dưới ngưỡng phát hiện của phương pháp)
<1: Nghĩa là dưới ngưỡng phát hiện của phương pháp


PHÒNG KIỂM NGHIỆM
LAB

HÓA-CHEMICAL

VI SINH-MICROBIOLOGY



Dương Thị Thảo


Hồ Thị Lan Mai



Cao Thủy Trinh

Vinh, ngày 06 tháng 5 năm 2020

P. TRƯỜNG KHOA
VICE. HEAD OF DEPARTMENT


Cao Thủy Trinh

P. GIÁM ĐỐC
VICE. DIRECTOR


Phạm Đình Du

1 Các kết quả thử nghiệm ghi trong phiếu này chỉ có giá trị đối với mẫu thử nghiệm/Test result are valid for the submitted sample(s) only.

2 Không được trích dẫn một phần phiếu kết quả thử nghiệm nếu không có sự đồng ý bằng văn bản của Trung tâm kiểm soát bệnh tật Nghệ An /

3 Tên mẫu, tên khách hàng được ghi theo yêu cầu của nơi gửi mẫu/ Name of sample(s) and customer are written as customer's request


4 Phiếu kết quả này được làm thành 03 bản: 02 bản trả cho khách hàng, 1 bản lưu tại Khoa Xét Nghiệm/

5* Chỉ tiêu được công nhận ISO/IEC 17025:2017/* Tests area accredited ISO/IEC 17025:2017

6** Chỉ tiêu sử dụng nhà thầu phụ** Tests are use subcontractors

BM.7.8..01 1 n ban hành: 1

Sample analysis results in May - Quarter 2 - 2020
 Laboratory: Center for disease control in Nghe An province



SỞ Y TẾ NGHỆ AN
NGHỆ AN DEPARTMENT OF HEALTH
TRUNG TÂM KIỂM SOÁT BỆNH TẬT
CENTERS FOR DISEASE CONTROL (CDC)
 Địa chỉ/Address: 140 Đường Lê Hồng Phong, Thành phố Vinh, Tỉnh Nghệ An/
 140 Le Hong Phong Street, Vinh Town, Nghe An Province
 ĐT/Tel: 02383835810/02383593071
 Email: xetnghiemdpna@gmail.com

PHIẾU KẾT QUẢ THỬ NGHIỆM
TEST REPORT

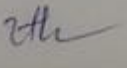
Số/No.: 441/PKN-KSBT

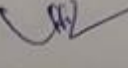
1. Tên mẫu/Name of sample: Nước máy nhà máy nước Cửa Lò **Mã số/Code:** 200516/72
2. Tên/địa chỉ khách hàng Name/Address of customer: Công ty Cổ phần cấp nước Cửa Lò
 Khối Tân Phú – P. Nghi Hương – TX Cửa Lò – Nghệ An
3. Mô tả mẫu/Description: 500mL/chai x 03 chai
4. Ngày nhận mẫu/Date of receiving: 15/5/2020
5. Người lấy mẫu/Sample taking: Nguyễn Minh Tri
6. Kết quả thử nghiệm/Test result:

TT No.	Tên chỉ tiêu Characteristic	Đơn vị Unit	Phương pháp thử Test method	Giới hạn tối đa cho phép Regular limit (QC 01/2009/BYT)	Kết quả Result
1	Mùi vị		Cảm quan	Không có mùi vị lạ	Không có mùi vị lạ
2	Độ màu	TCU	TCVN 6185 - 2015	15	0,0
3	pH*		TCVN 6492:2011	6,5 – 8,5	7,16
4	Nitrit (NO ₂ ⁻)*	mg/L	TCVN 6178-1996	3	KPH(<0,002)
5	Nitrat (NO ₃ ⁻)*	mg/L	TCVN 6180-1996	50	1,833
6	Clorua (Cl ⁻)*	mg/L	TCVN 6194-1996	250	41,89
7	Sắt tổng số (Fe ³⁺)*	mg/L	SMEWW 3500B Fe 2017	0,3	KPH(<0,017)
8	Độ cứng*	mg/L	TCVN 6224 - 1996	300	70
9	Man gan*	mg/L	SMEWW 3111B-Mn 2017	0,3	KPH(<0,014)
10	Độ đục	NTU	HANNA – HI 98703	2	0,19
11	Hàm lượng SO ₄ ²⁻	mg/L	TCVN 6200-1996	250	14,767
12	Chỉ số Pemanganat*	mg/L	TCVN 6186-1996	2	0,96
13	Clo dư	mg/L	HANNA- HI 96701	0,3 - 0,5	0,34
14	E. coli*	SL/ 100 mL	TCVN 6187-1:2019	0	<1
15	Coliforms*	SL/ 100 mL	TCVN 6187-1:2019	0	<1

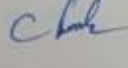
Ghi chú: KPH: Không phát hiện (nghĩa là dưới ngưỡng phát hiện của phương pháp)
 <1: Nghĩa là dưới ngưỡng phát hiện của phương pháp


PHÒNG KIỂM NGHIỆM
LAB
HÓA-CHEMICAL VI SINH-MICROBIOLOGY



Dương Thị Thảo


Hồ Thị Lan Mai

P. TRƯỞNG KHOA
VICE. HEAD OF DEPARTMENT
P. GIÁM ĐỐC
VICE. DIRECTOR


Cao Thúy Trinh


Phạm Đình Du



1. Các kết quả thử nghiệm ghi trong phiếu này chỉ có giá trị đối với mẫu thử nghiệm/Test result are valid for the submitted sample(s) only.
 2. Không được trích dẫn một phần phiếu kết quả thử nghiệm nếu không có sự đồng ý bằng văn bản của Trung tâm kiểm soát bệnh tật Nghệ An /
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 3. Tên mẫu, tên khách hàng được ghi theo yêu cầu của nơi gửi mẫu/ Name of sample(s) and customer are written as customer's request.
 4. Phiếu kết quả này được làm thành 03 bản: 02 bản trả cho khách hàng, 01 bản lưu tại Khoa Xét Nghiệm/
 The test result are printed in 03 documents: 02 document is given to customer, 01 document is stored at Testing Department
 5* Chỉ tiêu được công nhận ISO/IEC 17025:2017. *Tests are accredited ISO/IEC 17025:2017
 6** Chỉ tiêu sử dụng nhà thầu phụ. **Tests are use subcontractors

BM.7.8.01

Lần ban hành: 1

Soát xét: 1

Sample analysis results in June - Quarter 2 - 2020
Laboratory: Center for disease control in Nghe An province



SỞ Y TẾ NGHỆ AN
NGHỆ AN DEPARTMENT OF HEALTH
TRUNG TÂM KIỂM SOÁT BỆNH TẬT
CENTERS FOR DISEASE CONTROL (CDC)
Địa chỉ/Address: 140 Đường Lê Hồng Phong, Thành phố Vinh, Tỉnh Nghệ An/
140 Le Hong Phong Street, Vinh Town, Nghe An Province
ĐT/Tel: 02383835810/02383593071
Email: xetnghiemdpna@gmail.com

PHIẾU KẾT QUẢ THỬ NGHIỆM
TEST REPORT

Số/No.: 548PKN-KSBT

1. Tên mẫu/Name of sample: Nước máy nhà máy Cửa Lò Mã số/Code: 200615/51
2. Tên/địa chỉ khách hàng Name/Address of customer: Công ty cổ phần cấp nước Cửa Lò
Khối Trần Phú- Xã Nghi Hương- TX Cửa Lò
3. Mô tả mẫu/Description: 1500mL/chai x 02 chai, 250mL/chai x 02 chai
4. Ngày nhận mẫu/Date of receiving: 04/06/2020
5. Người lấy mẫu/Sample taking: ThS Nga, KS Diệp
6. Kết quả thử nghiệm/Test result:

TT No.	Tên chỉ tiêu Characteristic	Đơn vị Unit	Phương pháp thử Test method	Giới hạn tối đa cho phép Regular limit (QC 01/2009/BYT)	Kết quả Result
1	Mùi vị		Cảm quan	Không có mùi vị lạ	Không có mùi vị lạ
2	Độ màu	TCU	TCVN 6185 - 2015	15	0,0
3	pH*		TCVN 6492:2011	6,5 – 8,5	7,60
4	Amoni (NH_4^+)*	mg/L	SMEWW 4500-NH ₃ F 2017	3	KPH(<0,01)
5	Nitrit (NO_2^-)*	mg/L	TCVN 6178-1996	3	KPH(<0,002)
6	Nitrat (NO_3^-)*	mg/L	TCVN 6180-1996	50	0,916
7	Clorua (Cl^-)*	mg/L	TCVN 6194-1996	250	48,99
8	Sắt tổng số (Fe^{3+})*	mg/L	SMEWW 3500-Fe-B 2017	0,3	KPH(< 0,017)
9	Độ cứng*	mg/L	TCVN 6224 - 1996	300	87
10	Man gan*	mg/L	SMEWW 3111B-Mn 2017	0,3	KPH(< 0,014)
11	Chì (Pb)	mg/L	ISO 15586:2003	0,01	< 0,002
12	Asen	mg/L	TCVN 6626-2000	0,01	KPH(<0,0006)
13	Xyanua	mg/L	TCVN 6181-2:2015	0,07	KPH(<0,0015)
14	Đồng*	mg/L	TCVN 6193-1996	1	KPH(<0,03)
15	Độ đục	NTU	HANNA-HI 98703	2	0,16
16	Hàm lượng SO_4^{2-}	mg/L	TCVN 6200-1996	250	1,479
17	Chỉ số Pemanganat*	mg/L	TCVN 6186-1996	2	1,44
18	Chất hòa tan(TDS)	mg/L	SMEWW 2540 C	1000	149,98
19	Kẽm*	mg/L	TCVN 6193-1996	3	KPH(<0,014)
20	Cadimi	mg/L	ISO 15586:2003	0,003	KPH (< 0,0003)
21	Thủy ngân	mg/L	TCVN 7877-2008	0,001	KPH(<0,0005)

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2. Không được trích dẫn một phần phiếu kết quả thử nghiệm nếu không có sự đồng ý bằng văn bản của Trung tâm kiểm soát bệnh tật Nghệ An/
The test report must not be reproduced without the written approval of Nghệ An Center for disease control
3. Tên mẫu, tên khách hàng được ghi theo yêu cầu của tài liệu mẫu/ Name of sample(s) and customer are written as customer's request.
4. Phiếu kết quả này được làm thành 03 bản: 02 bản trả cho khách hàng, 01 bản lưu tại Khoa Xét Nghiệm/
The test result are printed in 03 documents: 02 document is given to customer; 01 document is stored at Testing Department
5* Chỉ tiêu được công nhận ISO/IEC 17025:2017*Tests area accredited ISO/IEC 17025:2017
6** Chỉ tiêu sử dụng nhà thầu phụ**Tests are use subcontractors

BM 7.8.01.01

Lần ban hành: 1

Soát xét: 1

PHIẾU KẾT QUẢ THỬ NGHIỆM
TEST REPORT

22	Clo dư	mg/L	HANNA- HI 96701	0,3 - 0,5	0,5
23	Hàm lượng Florua	mg/l	TCVN 6195 - 1996	1,5	0,24
24	<i>E. coli</i> *	SL/ 100 mL	TCVN 6187-1:2019	0	<1
25	Coliforms*	SL/ 100 mL	TCVN 6187-1:2019	0	<1

Ghi chú: KPH, <1: Nghĩa là dưới ngưỡng phát hiện của phương pháp

Vinh, ngày 22 tháng 6 năm 2020

PHÒNG KIỂM NGHIỆM

P. TRƯỞNG KHOA

P. GIÁM ĐỐC

LAB

VICE. HEAD OF DEPARTMENT

VICE-DIRECTOR

HÓA-CHEMICAL

VI SINH-MICROBIOLOGY



Dương Thị Thảo

Hồ Thị Lan Mai

Cao Thúy Trinh

Phạm Đình Du

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