REPORT

Bağlama Wind Power Plant

Non-Technical Summary for the Bağlama WWP Project

Submitted to:

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1.0 INTRODUCTION

1.1 About Bağlama WPP Project

Bağlama Wind Power Plant ("WPP") Project (the "Project") is planned to be established and operated in the Gevaş District of Van Province by Ares Elektrik Üretim A.Ş. ("Ares"), a company under Fina Enerji Holding A.Ş. ("Fina").

The installed power of the Bağlama WPP Project has been designed as 53.2 MWm/50 MWe, with fourteen turbines functioning at 3.8 MW each. The design puts the foreseen energy generation output of the Project as 174,762,000 kWh/year. Bağlama WPP Project will be connected to the 154 kV Yeni Engil TM – Tatvan Energy Transmission Line (ETL) with a length of 3079.0 meters.

The standard "49-year Electric Power Generation License" for the Project (License No. EÜ/8673-13/04268, dated 27.06.2019) has been issued by Energy Market Regulatory Authority ("EMRA") for the Bağlama WPP Project.

1.2 About Fina

Fina Enerji has been established by Fina Holding in 2007 to involve in development, generation and trading of renewable energy and continues its activities with 450 employees of all subsidiaries. Fina Enerji currently has 9 wind farms of 336 MW and 5 solar power plants of 25 MW under operation. 9 wind power plants with a capacity of 350 MW are in the pipeline. Fina Enerji which is one of the most important companies of Fina Holding contributes to the country's economy through generation of energy from renewable resources. Ares as subsidiary of Fina Enerji is currently in the process of making investments in WPP Projects where Bağlama WPP Project is one these potential projects.

1.3 The Goal of this Document

This document is a non-technical summary (NTS) of the planned and already conducted Environmental and Social Impact Assessment studies for the Project in a non-technical language, together with the mitigation measures proposed by Ares for the management of the Project environmental and social issues.

1.4 Previous Environmental and Social Studies Conducted for the Project

- **Environmental Impact Assessment (EIA) Report** was prepared for the initial design of the Bağlama WPP Project with 25 turbines with the total installed capacity of 50 MW and granted the EIA Positive Decision was granted for the Project on 14th of December 2017. Following the EIA approval, the Project was firstly redesigned to have 15 turbines and total installed capacity of 51,975 MW. Then, the Project was revised again considering the wind analysis and engineering studies and the final design criteria was set as 53.2 MWm/50 MWe of total installed capacity by installing 14 turbines with 3.8 MW each. Official Letter from MoEU confirming that EIA Decision is valid for the revised Bağlama WPP of 53.2 MWm/50 MWe of total installed capacity with 14 turbines was obtained on 18.05.2018.
- **Flora and Fauna Studies:** Within the scope of the EIA Report studies (for the initial design of 25 turbines with total installed capacity of 50 MW), a field study was carried out by Hacettepe University Faculty of Science Biology Department Instructor Haşim Altınözlü in May 2017 to determine the risks and protection status faced by the floral structure and the components of the flora of the project site. Similarly, fauna studies were conducted in May 2017 by Prof. Dr. Şakir Önder Özkurt to make habitat investigations and assessment of the habitats used by local fauna components. Following EIA studies, Spring 2018 and Autumn 2018 bird surveys were conducted.

- **Early engagement meetings** were held to protect social environment and local people living in project impact area in the national EIA process. The living conditions, demands, expectations, suggestions and complaints of local people were determined. Contribution to local stakeholders during project implementation is aimed.

1.5 Ongoing Studies

- Air quality and noise quality measurements were conducted in 19.08.2019 by Batı Laboratory which is an accredited company from MoEU.
- Flora survey was completed in 28.08.2019 by Ecologist Haşim Altınözlü.
- Bird collision risk assessment has been conducted.

1.6 Standards to be applied in the Project

Ares commits to adhere to the provisions of Turkish Legislation applicable to the Project during the life time of the Project. These requirements include (but are not limited to) the Environment Law, Occupational Health and Safety Law, Labour Law and their issued regulations. The Project will comply with the applicable World Bank ("WB") Environmental and Social Standards ("ESSs") which are more stringent than national legislation and standards.

2.0 THE PROJECT

2.1 The Purpose of the Project

Wind energy is one of the important sources of clean energy production while playing an important role in fighting global warming. Turkey has an increasing demand in energy and the use of clean, non-dependent, endless renewable energy has become more important for Turkey in order to meet the demands. The wind potential of Turkey is very valuable as the usage of wind as an energy resource has increased since 2005.

In this content, the aim of the Bağlama WPP Project is to install a wind farm in Van which will provide clean energy in a sustainable and cost-effective way and therefore contribute to the regional and national benefits.

The environmental permits obtained for the Bağlama WPP Project are listed in table below.

Table 1 Project Environmental Permitting

Project EIA Permitting	Issue Date
The standard "49-year Electric Power Generation License" for the Project (License No. EÜ/8673-13/04268) has been issued by Energy Market Regulatory Authority ("EMRA") for the Bağlama WPP Project.	27.06.2019
EIA Positive Decision for the Bağlama WPP for the 25 turbines with the total installed capacity of 50 MW located in Bitlis and Van Provinces.	14.12.2017
Official Letter from MoEU confirming that EIA Decision is valid for the revised Bağlama WPP of 53.2 MWm/50 MWe of total installed capacity with 14 turbines.	18.05.2018
EIA Not Required Decision for the 3079.0 meters 154 kV Bağlama WPP Energy Transmission Line.	08.02.2019

2.2 Renewable Energy Generation Capacity of the Project

Ares is planning to operate Bağlama WPP with the total installed capacity of 53.2 MWm/50 MWe with 14 turbines having 3.8 MW capacity each. The design puts the foreseen energy generation output of the Project as 174,762,000 kWh/year.

2.3 Project Description (Including Associated Facilities)

The technology used in the Project will provide the wind turbines to convert the kinetic energy into mechanical energy which is then converted into electricity by a generator. The installed power of the Bağlama WPP Project has been designed as 53.2 MWm/50 MWe, with fourteen turbines functioning at 3.8 MW. Associated facilities of the Project that are included in the Area of Influence are comprised of the following:

- The Wind Turbines
- Access Road
- Energy Transmission Line
- Switchyard
- Mobilization/construction camps
- Transformer Stations

2.4 Project Location

The turbines of Bağlama WPP Project are located in the Gevaş District of Van Province. The Energy License Area is within the borders of Bitlis and Van Provinces. Project site and Energy transmission line (ETL) land use information is given in Section 3.3

The nearest settlements to the Bağlama WPP Project is Çiğir Neighbourhood with 2 km distance to T7 and Töreli Neighbourhood with 2 km distance to T13. Other nearby settlements around the Project site are Kuşluk, Değirmitaş, Hasbey, Yuva, Yemişlik, Bağlama, Anaköy, Daldere and Söğütlü Neighbourhoods.

ETL having the length of 3079 meters is located within Kuşluk and Yoldöndü Neighbourhoods of Gevaş District in Van Province. The shortest distance of the ETL to Kuşluk Neighbourhood is 1 km.

The Project location is shown in Figure 1 and the nearest settlements around the Project site is given in Figure 2.

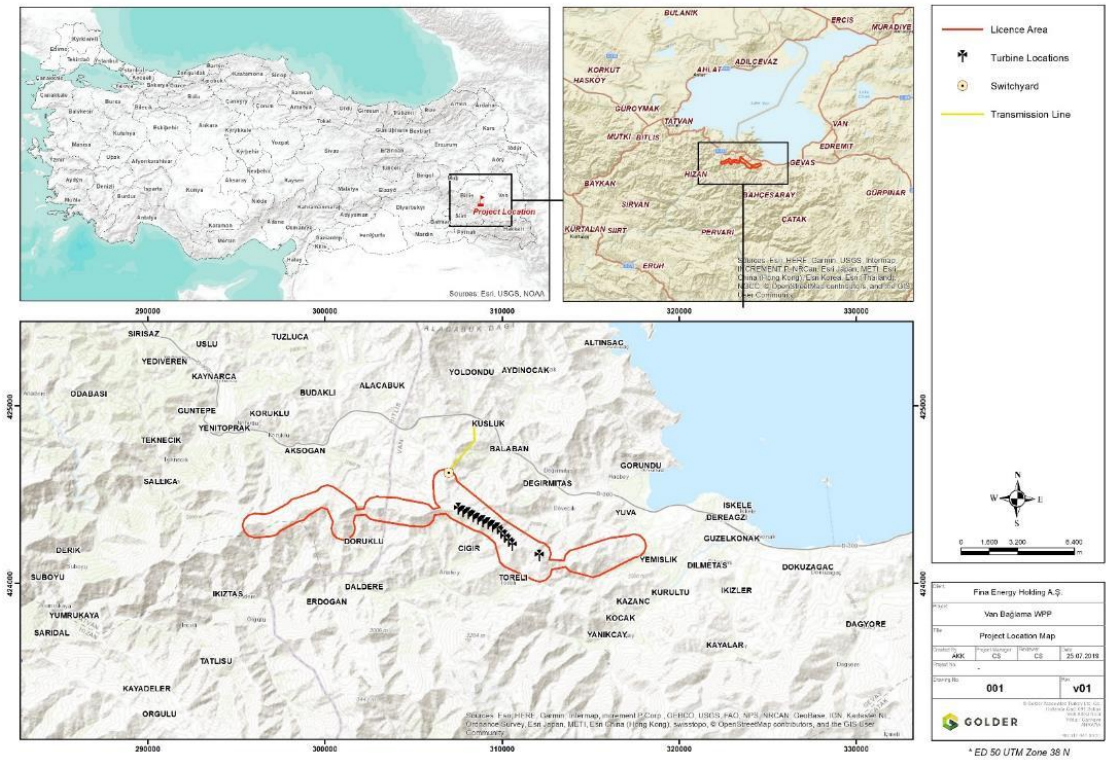

Figure 1 Bağlama WPP Project Site Location Map

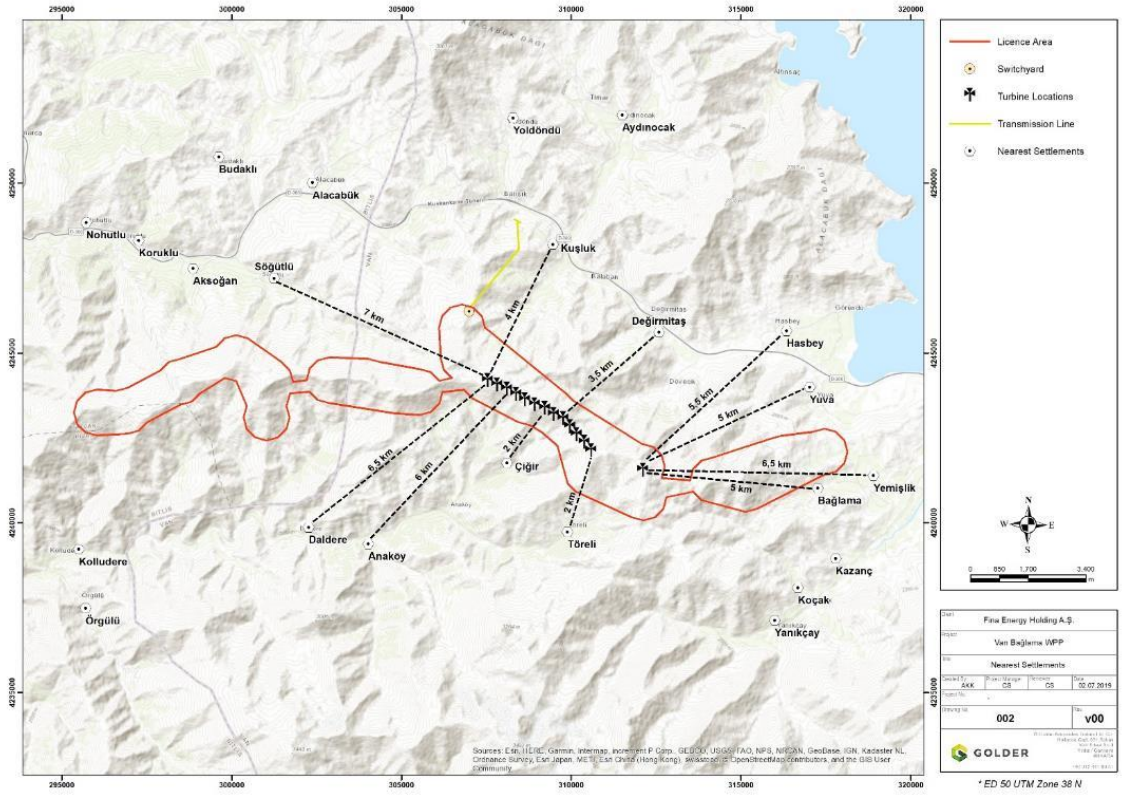

Figure 2 Bağlama WPP Turbine Locations and the Nearest Settlements

2.5 Land Acquisition and Required Permissions for the Project

The Project area and the ETL land use and land acquisition information is provided below.

Land Properties of Project Area

According to the document obtained from ARES:,

- Expropriated parcels are placed in Van city, Gevaş district and Bitlis city, Tatvan district.
- Total area expropriated including all types of land is: 638.876,26 m^2, 65 parcels.
- Total area expropriated in Van city is 560.973,64 m^2. 484,62 m^2 of the total area classified as private property. The rest is state treasury (pasture). The intended use of purpose for these areas are turbine locations (288.598,14 m2), access roads (268.426,38 m2) and switchyard (1.492 m2) in Van.
- Total area expropriated in Bitlis city is 77.902,62 m2. 4.639,08 m2 of the total area classified as treasury. The rest is state treasury (out of registration). The intended use of purpose for these areas are access road (71.413,10 m2) and swithcyard (6.489,52 m2) in Bitlis.
- All parcels except 1 parcel in Van city, Gevaş district are identified as public property. 2 parcels remaining in Bitlis city, Tatvan district are identified as belonging to the Treasury, while the rest is identified as state-owned lands.
- Out of 65, 64 parcels belong to public/treasury/state owned, while 1 parcel belong to private.
- There has been no housing, barn, barrack and any other type of building is officially observed to compensate.

Land Properties of Energy Transmission Line

- 23 parcels identified that expropriated and leased, are in Van city, Gevaş district.
- Classifications for those parcels are; public property, private land and Treasury premises.
- 2.057,35 m^2 is expropriated and easement (right of way) is obtained 84.896,79 m^2 of land.

Any physical resettlement activity is not planned for the Project. However, expropriation process of privately owned parcels will be done in a transparent manner and in full compliance with WB ESS. A land acquisition information document is provided in order to monitor the acquired parcels properly and track the compensation, negotiation and information disclosure phases; as well as the grievances raised and resolved accordingly.

2.6 Project Schedule

The detailed Project schedule is presented in Table 2.

Table 2 Project Schedule-Summary

TASK	START DATE	FINISH DATE
Basic Design	18.08.2017	09.11.2017
Detailed Engineering	22.08.2017	28.04.2018
Procurement	13.05.2019	31.05.2020
Land Clearing	15.08.2019	15.11.2019
Construction	15.03.2020	08.08.2020
Turbine Montage	30.06.2020	07.10.2020

TASK	START DATE	FINISH DATE
Basic Design	18.08.2017	09.11.2017
Detailed Engineering	22.08.2017	28.04.2018
Commissioning	16.07.2020	14.10.2020
Operation	15.10.2020	…

2.7 Personnel Plan of the Project

Total number of personnel planned to be employed is 300 at peak and 100 at average including subcontractors for the construction period. The number of planned personnel for the operation period is 18. Project will prioritize the local applicants during the recruitment project.

3.0 MANAGEMENT OF ENVIRONMENTAL AND SOCIAL ISSUES

For the management of environmental and social issues, following mitigation measures will be implemented in the construction and operation phases of the Project.

Table 3 Summary of Project Management Strategy for Construction Phase

Component	Potential Impact	Mitigation Measures
Air Quality	■ PM10-PM2.5 resulted from construction activities and transportation ■ SO2, NOx, resulted from construction activities and transportation	■ Periodic maintenance of construction equipment ■ Dust suppression by street-sprinkler ■ Implementation of relevant Management Plan/Procedures (Traffic Management Plan, Training, etc.)
Noise	■ Resulted from construction activities, construction of roads and transportation	■ Periodic maintenance of construction equipment ■ Implementation of relevant Management Plan/Procedures (Traffic Management Plan, Training, etc.)
Water usage	■ The water to be used in construction and operation phase will be supplied by tankers from the nearest settlement.	■ Necessary permits to be obtained to supply water.
Wastewater	■ Domestic wastewater will be formed in the project due to worker's water usage.	■ Septic tank will be used to collect the wastewaters. Wastewater that accumulates in the septic tank will be collected by the municipality.
Biodiversity	■ Impacts on flora and fauna components by land disturbance ■ Dust and noise impacts (given above)	■ The general mitigation measures (such as, land minimization of land disturbance where possible, etc.) are defined in the EIA Report. ■ A bird collision risk assessment has been conducted during mobilization. ■ Additional flora studies have been conducted to revise the existing studies

Component	Potential Impact	Mitigation Measures
		considering the revised design criteria of the Project site. ■ The specific mitigation measures will be defined in the light of the findings of additional field studies and existing assessment reports.
Cultural Heritage	■ Van Gevaş Bağlama Cave Church/Chapel is placed in the project area but not impacted from neither wind turbines nor the switchyard	■ Implementation of Chance Find Procedure
Social - Economical and Land Use	■ Positive impacts are expected both for local procurement and local employment. ■ Impacts on livelihood resources may be resulted by construction activities	■ Prioritizing the local procurement and employment ■ Implementation of relevant Management Plan/Procedures (Land Acquisition Plan).
Community Health and Safety	■ Increased traffic load and potential risks ■ Unauthorized site access ■ Potential communication problems of community members with workers. ■ Dust and noise impacts (given above)	■ Implementation of relevant Management Plan/Procedures (Community H&S Management Plan, Traffic Management Plan, Training, etc.) ■ Implementation of Grievance Mechanism Procedure
Occupational Health & Safety	■ Occupational health and safety risks will mainly include activities of working at height and lifting operations.	■ Implementation of Occupational H&S Policy/Plan/Procedures/Instructions, Emergency Response Plan, Traffic Management Plan ■ Training and supervision ■ Emergency drills ■ Accident/Incident Reporting and investigations ■ Suggestion/Complaints reporting ■ Regular site inspections

Table 4 Summary of Project Management Strategy for Operation Phase

Component	Potential Impact	Mitigation Measures
Noise	■ No impact is expected based on the noise modelling results for operational activities	NA
Biodiversity	■ Impacts on fauna components (Birds and bats)	■ The general mitigation measures (such as, land minimization of land disturbance where possible, etc.) are defined in

Component	Potential Impact	Mitigation Measures
		Ornithological Ecological Assessment Report and Bird Monitoring Report. ■ ■
Cultural Heritage	■ Van Gevaş Bağlama Cave Church/Chapel is placed in the project area but not impacted from neither wind turbines nor the switchyard	■ Implementation of Chance Find Procedure
Social - Economical and Land Use	■ Positive impacts are expected both for local procurement and local employment.	■ Prioritizing the local procurement and employment
Visual Impact	■ Visual impacts associated with wind energy projects typically concern the installed and operational turbines themselves.	The closest settlement is approximately 2 km from the nearest turbine location. . There is not any significant visual impact expected to the closest settlement during the operation phase.
Shadow Flicker and Blade/Ice Throw Assessment	■ Shadow flicker may become an impact when potentially sensitive receptors are located nearby.	■ The closest settlement is approximately 2 km from the nearest turbine location. There is not any significant shadow flicker impact expected to the closest settlement during the operation phase.
Community Health and Safety	■ A failure of a rotor blade can result in throwing. ■ Unauthorized access to turbines ■ Shadow Flicker and Blade/Ice Throw Impact (explained above).	■ Regular maintenance of the turbines.
Occupational Health & Safety	■ During operation the impacts will likely be limited to the maintenance of the turbines.	■ Implementation of Occupational H&S Policy/Plan/Procedures/Instructions, Emergency Response Plan, Traffic Management Plan ■ Training and supervision ■ Emergency drills ■ Accident/Incident Reporting and investigations ■ Suggestion/Complaints reporting ■ Regular site inspections

4.0 STAKEHOLDER ENGAGEMENT

A Stakeholder Engagement Plan (SEP) has been prepared for the construction and operational phases of the Project in line with the WB ESS10. The SEP identifies target groups and the specific range of engagement activities required for each group.

Ares has the overarching goal of developing sustainable relations with stakeholders through the lifetime of the Project and therefore will continue to engage stakeholders through various activities as detailed in the Stakeholder Engagement Program.

Ares will provide transparent informative material in a consistent and timely manner to the affected communities and the remaining stakeholders. Communication methods to be employed vary dependant on the project phase, issue to consult/inform as well as the stakeholder type. Communication methods with stakeholders within the Project include but not limited with the following:

- Public hearings or meetings
- Workshops and seminars
- Consultations with key informants
- Focus groups
- Round tables
- Discussions as part of conducting surveys or census studies
- Consultations using electronic media
- Awareness campaigns and outreach
- Internal/external grievance mechanism

Initial engagement methods have been in the form of meetings and interviews. Ares authorities or consultants for Ares have gone to the affected communities to consult with the local stakeholders. These methods will continue during the construction and operational period. Construction and Operational managers of the Bağlama WPP Project will maintain regular dialogue with the local Mukhtars of the affected settlements.

5.0 HOW WILL THE PROJECT SUPPORT COMMUNITY DEVELOPMENT?

Ares will develop and Implement Corporate Social Responsibility (CSR) Plan within the scope of the Bağlama WPP Project.

6.0 HOW TO RAISE A COMPLAINT OR ASK A QUESTION?

Ares has established a grievance mechanism which is available for every stakeholder to use, both internal and externally. Any comments or concerns can be brought to management attention either verbally or in writing (by post or e-mail) or by filling in a grievance form (an example is included in Appendix-1). Through that mechanism Ares will respond to and resolves the raised issues.

In order to ask a question, to make a comment or a complaint, stakeholders may also reach out to the General Directorate and Operations' Formal Communication departments by using following contact information.

Fina Istanbul office; Name: Title: Telephone:	Ares Van office; Name: Title: Telephone:

Address: E-mail: Website:	Address: E-mail: Website:

APPENDIX 1 – ARES INTERNAL GRIEVANCE FORM

Reference No:	
Full Name Note: *you can remain anonymous if you prefer or request not to disclose your identity to the third parties without your consent*	**Name & Surname:** _____ ☐ **I wish to raise my grievance anonymously** ☐ **I request not to disclose my identity without my consent**
Contact Information **How the complainant wants to be contacted (mail, telephone, e-mail).**	☐ **By Post:** **Mailing address:** ☐ **By Telephone:** _____ ☐ **By E-mail** _____ ☐ **I don't want to be contacted**
Description of Incident or Grievance:	What happened? Where did it happen? Who did it happen to? What is the result of the problem?
Case summary:	
Date of Incident/Grievance	
	☐ **One-time incident/grievance (Date _____)** ☐ **Happened more than once (how many times? _____)** ☐ **On-going (Provide details)**
What would you like to see happen to resolve the problem?	

Only for internal usage: Status of complaint		
	Date:	Signature:
Complaint is closed by:		
Actions taken (Provide details):		

APPENDIX 1 – ARES EXTERNAL GRIEVANCE FORM

<table>
<tr><td colspan="3">Information about the complainant</td></tr>
<tr><td colspan="2">Name and Surname:</td><td rowspan="4">Only for internal use: How is the complaint made?
1. In person
2. By phone
3. By mail
4. By e-mail
5. Other (specify)……</td></tr>
<tr><td colspan="2">Date: ___/___/_____</td></tr>
<tr><td colspan="2">Address</td></tr>
<tr><td colspan="2">Phone</td></tr>
<tr><td colspan="2">E-mail</td><td></td></tr>
<tr><td colspan="2">Name and Surname of the person taking the complaint</td><td>Date of complaint and signature:</td></tr>
<tr><td colspan="3">DETAILS OF COMPLAINT:</td></tr>
<tr><td colspan="3">• Case for one time (date of problem/complaint ……..)

• Does the problem occur more than one?
☐ Yes, (how many times?.....)
☐ No

• Does the problem/complaint continue? (If “Yes”, provide details):</td></tr>
<tr><td colspan="3">Only for internal usage: Record and Respond</td></tr>
<tr><td colspan="2">Complaint reference number:</td><td>Date of complaint log:</td></tr>
<tr><td colspan="2">Name of personnel recording the complaint</td><td rowspan="2">Copy transfer:
• Relevant unit
• Other (specify)……</td></tr>
<tr><td colspan="2">Required action:</td></tr>
<tr><td colspan="3">Only for internal usage: Status of compliant</td></tr>
<tr><td></td><td>Date:</td><td>Signature:</td></tr>
<tr><td>Complaint is closed by:</td><td></td><td></td></tr>
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