

Semi-Annual Environmental Monitoring Report

Loan No: 3524
#12 Semi-annual EMR
Reporting period: January-June 2024
July 2024

Georgia: Rehabilitation of Dzirula–Kharagauli–Moliti–Pona– Chumateleti Secondary Road Section (50Km)

Prepared by: Roads Department of the Ministry of Regional Development and
Infrastructure of Georgia for the Asian Development Bank

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ACRONYMS & ABBREVIATIONS

ADB	Asian Development Bank
BKNP	Borjomi-Kharagauli National Park
EMP	Environmental Management Plan
GRM	Grievance Redress Mechanism
IEE	Initial Environmental Examination
PIU	Project Implementation Unit
RD	Roads Department
SEMP	Site-Specific Environmental Management Plan
TSEMP	Topic Specific Environmental Management Plan
SAEMR	Semi Annual Environmental Monitoring Report
BoQ	Bill of Quantities
SC	Supervision Consultant
dB	Decibel
CC	Construction Contractor
GRCE	Grievance Redress Committee
H&S	Health & Safety
PPE	Personnel Protective Equipment'
IFC	International Finance Corporation
MoEPA	Ministry of Environmental Protection and Agriculture
MoRDI	Ministry of Regional Development and Infrastructure
NCN	Non-Conformance Notice
NCR	Non-Conformance Report
PPE	Personnel Protective Equipment'
SPS	Safeguard Policy Statement
AP	Affected Person

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1 INTRODUCTION

1.1 Preamble

1. This report represents the Semi-annual Environmental Monitoring Review of Rehabilitation of Dzirula – Kharagauli – Moliti – Pona – Chumateleti Secondary Road Section (50Km).

2. This report is the twelfth Semi-annual EMR for the project and covers January-June 2024 reporting period.

1.2 Headline Information

3. The project road is a 50.404-km west to east secondary road, starting from E-60 in Dzirula and ending at E-60 junction at Chumateleti. Most of the project road is within Imereti Region with a few kilometers within Shida-Kartli Region. It is envisioned that this road, when improved, will enhance connectivity to a number of towns and villages at the foothills of the mountain ranges and can act as alternate route to parallel segments along E-60.

4. For implementation purposes, the project was divided into 2 separate sections of about 25 km each:

- First road section Lot 1 (Construction Contractor, Black Sea Group) covers the eastern - 25 km section of the above road from Moliti (km 0+000) to Chumateleti (km 24+620).
- The second road Lot 2 (Construction Contractor, Akkord Industry Construction Investment Corporation OJSC) covers the eastern region from Km24+620 to Km50+244).

5. The project is classified as Category B per ADB Safeguard Policy Statement (SPS). The draft initial environmental examination (IEE) was prepared in August 2016 and updated in February 2017. Both the draft and final IEEs were disclosed on ADB website. According to the IEEs, the Borjomi-Kharagauli National Park (BKNP) is 1.4 kilometers (km) from the project's existing road and is separated by a river gorge, which prevent the transposition of flora and fauna. Therefore, the IEE concluded that the project will have no direct impacts on the biodiversity of the BKNP. The recommended environmental mitigation measures and monitoring activities set out in the EMP cover the preconstruction, construction, and operation stages of the project.

6. The national EIA (IEE) was submitted to the Ministry of Environment and Natural Resources Protection for approval by the Road Department of Georgia on 20 November 2017, and it was approved by MoEPA on 1st December 2017. Lot 1 and Lot 2 contractor have obtained all relevant required permits/clearances.

7. **Lot 1.** The civil works contract for Lot-1 (Dzirula-Moliti Road) was awarded on 04 December 2017 to Black Sea Group (BSG) (referred to as Lot 1 contractor). Figure 1 shows the Lot 1 project location. The project design review and construction activities commenced on 18 September 2018. The Lot 1 civil works were completed on 31 May 2023. The defects notification period covers 24 months and will end on 31 May 2025.

Figure 1: Map of Project Road - Lot 1



8. **Lot 2.** The civil works contract for Lot 2 (Moliti-Chumateleti Road) was awarded on 04 December 2018 to AKKORD ICIC (referred to as Lot 2 contractor). Figure 2 shows the Lot 2 project location.

Figure 2: project Location – Lot 2



9. The Lot 2 started mobilization in May 2019 and set up a construction office at Chumateleti. Activities that were undertaken by Lot 2 contractor in the project site include: (i) construction office and workers facilities in Chumateleti; (ii) vegetation clearance; (iii) earthworks; (iv) drainage works; (v) construction of retaining structures; (vi) bridge works, (vii) new bypass road section and install gabion boxes.

10. The construction contractor of the Lot 2 systematically breached obligations under the contract with the RD. According to the decision of the RD, in November 2021, the Contract was terminated.

11. Lot 2 is being removed from the SRIP Loan Agreement. In October 2023, the Roads Department sent a request to the Ministry of Finance (Hereinafter –“MOF”) and respectively MOF sent a request to ADB to introduce the necessary adjustments to the Loan Agreement, particularly: a change in the scope, cancellation of the loan amount, and modification of the loan closing date. Meanwhile, Lot 2 was re-tendered and the contract was signed under the State budget financing per the state procurement procedures, the civil works on Lot 2 are ongoing. The procedures for modifying the Loan Agreement is still underway.

12. Therefore, this SEMR includes information only under the ADB financed part, in particular Lot 1 project.

13. In annex 2 is provided Post Construction Environmental Audit Report for Lot 1 and Conditions Report for Lot 2 (As of January 2024)

2. PROJECT DESCRIPTION AND CURRENT ACTIVITIES

2.1 Project Description

14. The project road is a 50.244 km west to east secondary road, starting from E-60 in Dzirula and ending at E-60 junction at Chumateleti. Most of the project road is within Imereti Region with a few kilometers within Shida Kartli Region, through a gorge with mountain ranges with on both the northern and southern part. It is envisioned that this road, when improved, will enhance connectivity to a number of towns and villages at the foothills of the mountain ranges and can act as alternate route to parallel segments along E-60.

15. The scope of Lot 1 civil works are as follows:

- Rehabilitate and pavement of the project road from Dzirula to Kharagauli according Georgian National Standard for Public Motor Roads (SST Gzebi 2009), Geometrical and Structural Requirements with 40 km/h design speed. The pavement within Kharagauli town is planned to execute minimum 4cm asphalt surface course after milling over the area.
- Replacement or repairing of 9 bridges and 102 culverts.
- Construction of side drains and other drainage structures.
- Provision of retaining walls and river protection measures, where necessary.
- Provision of adequate road signing and marking.
- Provision of safety barriers.

16. The scope of Lot 2 civil works are as follows:

- Rehabilitation and pavement of the project road from Moliti to Chumateleti according to Georgian National Standard for Public Motor Roads (SST Gzebi 2009), Geometrical and Structural Requirements with a design speed of 40km/h.
- Construction of 13 new bridges
- Construction of 86 pipe culverts and 6 box culverts.
- Construction of side drains and other drainage structures.
- Provision of retaining walls and river protection measures, where necessary.
- Provision of adequate road signing and marking.
- Provision of safety barriers.

17. The road is to be designed according to Georgian geometric design standard, and accordingly, it shall be sufficient to carry the traffic loading efficiently and with the vehicles from the opposite directions can pass safely. The design elements for the cross section of the two-lane road are as follows:

- Number of lanes: 2
- Linewidth: 3.00 m
- Carriageway width: 6.00 m
- Width of shoulder: 1.00 m
- Increase of shoulder on embankment 0.50 m
- Total road width: 9.00 m

18. The road design was carried out considering following design philosophy.

19. The project will improve the national connectivity and reliability of the transport network by serving as an alternative route to the highway E60 and the railway. Secondly, it will improve the mobility of the municipality's population. The Government of Georgia as a region that has been isolated due to the poor transport connections has identified the Kharagauli area. The road can no longer fully and efficiently function as either a local road or a strategic alternative for long distance transit traffic.

Table 1: Information on ADB-funded Civil Works Lots 1 and 2

Lot	Scope of Work	Name of Contractor	Civil Works Start Date	Civil Works End Date	Status
Lot 1	Dzirula (km 0+000) to Moliti (km 24+620)	Black Sea Group (BSG)	18 Sep 2018	31 May 2023	Civil works completed. The defects notification period covers 24 months and will end on 31 May 2025.
Lot 2	Moliti (km 24+620) to Chumateleti (km 50+244)	Akkord Industry Construction Investment Corporation OJSC	31 May 2019	Contract terminated on 3 Nov 2021	Only 8% civil works completed

2.2 Project Contracts and Management

20. Consultancy Services (CS) Contract was awarded to JV of Pyunghwa Engineering Consultants Ltd, Yoshin Engineering Corporation and Roads Rehabilitation and Modernization Supervision Direction Ltd for three phases of the project:

- Phase 1–Design review, to be completed in a period of five weeks.
- Phase 2–Construction Supervision and Project Management. The period is for 47 months.
- Phase 3–Defects Notification Period, two years (24 months).

21. The TOR for the Consultancy Contract contains the following tasks for the Environmental Specialists:

- Ensure that the provisions of the approved Environmental Management Plan are reflected;
- in the Contractor's contract site environmental management plan (SEMP) prior to its acceptance by the Engineer, the Employer and ADB, and there after ensure that the Contractor complies in every respect with the provisions of the SEMP;
- Carry out an environmental auditing for the construction period, regularly supervise the environmental monitoring and submit periodic reports based on the monitoring data and laboratory analysis reports. These reports will be included as an annex to the Consultant's Monthly Report;
- Develop a program for hands-on training of Contractor's staff in implementing the SEMP. Conduct Post-Construction Environmental Audit and prepare post-construction environmental audit report with filled environmental audit checklist;

22. All mitigation measures during construction were implemented respectively by the contractor company - Black Sea Group (BSG) LTD under LOT 1. The contractor company BSG have environmental and safety officers responsible for HSE issues during construction process.

23. Construction Company monitored by the supervision consultant (PYUNGHWA) environmental specialist – Shalva Bosikashvili and Environmental Specialist of RD Ms. Luiza Bubashvili.

24. For the January-June 2024 reporting period, the works on the Lot2 were already completed on 31 May 2023. According to the construction schedule, during the reporting period, there were defects liability process.

25. Lot 1 and Lot 2 contractors obtained all relevant required permits/clearances. The required permits and clearances, statuses, and validity are presented in Table 2.

Table 2. Permits and Clearances Obtained by Lot 1 and Lot 2 Contractors

Description	Date of approval
A. Lot 1 Contractor	
Permit for the emissions of hazardous substances into ambient air from stationary sources for batching plant.	Approved Letter N3389/0; 24.04.18
Waste management plan	Approved Letter N43/6680; 22.10.18
Permit for the Surface Water extraction	Approved Letter № 587/01; 10.07.18
B. Lot 2 Contractor	

Description	Date of approval
Permit for the emissions of hazardous substances into ambient air from stationary sources for batching plant.	Approved Letter N5273/01; 20.06.18
Waste management plan	Approved Letter N43/6680; 22.10.18
Permit for the tree cutting	Approved Letter N5/7515; 05.02.2020

26. Both Contractors under LOT 1 and LOT 2 prepared Site Specific and Topic Specific EMPs under the guidance of the Supervision Consultant. CS and RD reviewed and verified the applicability of the SEMP and topic-specific EMPs before clearance and before the commencement of civil works.

27. Table 3 shows the list of site-specific environmental management plans (SSEMP) and topic-specific environmental management plan (TSEMP) submitted by the contractors to the Roads Department. These plans are detailed and set out how the project will address potential issues identified in the impact assessment process and ensure that specific mitigation and monitoring measures are fully implemented.

Table 3: Site-Specific and Topic Specific Environmental Management Plans Submitted to the Roads Department

No	Plan / Method Statement
Lot 1	SSEMP and TSEMP approved on 02.12.2018
1	Site Specific Environmental Management Plan
2	Environmental Management Plan (updated)
3	Waste Management Plan (Construction Phase)
4	Emergency Response Plan
5	Spill Management Plan
6	Wastewater Management Plan
7	Chance Find Procedure
8	Labor Management Procedures
9	Clearance Cultivation Restoration Plan
10	Aggregate and Borrow Pit Management Plan
11	Topsoil Disposal and Erosion Management Plan
12	Air Quality Management Plan
14	Bridge Construction Management Plan
15	Spoil Disposal Management Plan
15	Method Statement for Temporary Roads
17	Method Statement for River Crossings
Lot 2	SSEMP and TSEMP approved on 30. 04. 2019
1	Site Specific Environmental Management Plan
2	Environmental Management Plan (updated)
3	Waste Management Plan (Construction Phase)
4	Emergency Response Plan
5	Spill Management Plan
6	Wastewater Management Plan
7	Chance Find Procedure
8	Labor Management Procedures

9	Clearance Cultivation Restoration Plan
10	Aggregate and Borrow Pit Management Plan
11	Topsoil Disposal and Erosion Management Plan
12	Air Quality Management Plan
13	Bridge Construction Management Plan
14	Spoil Disposal Management Plan
15	Method Statement for Temporary Roads
16	Method Statement for River Crossings

28. The names and contact details of environmental staff involved in the environmental management are presented in the **Table 4** below:

Table 4: Staff Involved In Environmental Safeguards

Organization	Position	Name	Nationality
ADB/RM	Georgia Country Focal/ Principal Environmental Specialist ADB Head Office	Ninette R. Pajarillaga	
	RETA/ADB National Environmental Consultant	Name: Giorgi Kobaladze	Georgian
	Safeguards Officer /ADB Georgia Resident Mission	Nino Nadashvili	Georgian
Roads Department	Environmental Safeguard Consultant	Luiza Bubashvili e-mail: likabubashvili@yahoo.com	Georgian
Construction Contractor BSG	Environmental Specialist	Levan Kereselidze	Georgian
Supervision Consultant Pyunghwa Engineering Consultants Ltd, Yoshin Engineering Corporation and Roads Rehabilitation and Modernization Supervision Direction Ltd	Environmental Specialist	Shalva Bosikashvili	Georgian

29. Summary of civil works up to June 2024 and work's progress is summarized in Table

Table 5: Summary of Civil Works Contracts for Rehabilitation of Dzirula Kharagauli-Moliti-Pona-Chumateleti Secondary Road Section (50km)

Scope	Contractor	Signed	Approval Date		Environmental Personnel		Civil Works	
			SSEMP	COVID-19 HSMP	Environmental Officer	Health and Safety Officer	Start	End
Dzilula-Moliti road section from km 0+000 to km24+620	Company Black Sea Group LLC (LOT 1)	04 Dec. 2017	Approved 12.02.2018	Prepared by SC Approved 25.11.2020	Beka Pangani	Beka Pangani	18 Sep. 2018	31 May 2023
Moliti-Chumateleti road section from km 24+620 to km 50+244	Accord Industry Construction Investment Corporation OJSC (LOT 2)	04 Dec. 2018	Approved 04.30.2019	Prepared by SC Approved 25.11.2020	Oleg Tabatadze (Absent from 2021 January)	Oleg Tabatadze (Absent from 2021 January)	31 May 2019	Contract terminated on 3 Nov 2021

30. For Lot 1, there was no progress in implementing construction activities during the reporting period. Since all civil works have been completed on 31 May 2023.

2.3 Description of Any Changes to Project Design and Work Scope Variation Orders, LOT 1

31. Due to the fact that during the reporting period no construction work was carried out no changes took place to the project design and accordingly nothing has been updated or prepared.

2.4 Description of Any Changes to Agreed Construction methods

32. No changes have been made to the agreed construction methods, as all civil works for Lot 1 were completed on 31 May 2023. The defects notification period will end on 31 May 2025.

3. ENVIRONMENTAL SAFEGUARD ACTIVITIES

3.1 General Description of Environmental Safeguard Activities

33. No construction activities took place during the reporting period therefore no environmental safeguard activities related to the period of January-June 2024 are reported.

3.2 Site Monitoring/Audits

34. The Supervision Environment Specialist was tasked to conduct a post-construction environmental audit and prepare a report. In order to realize the task, the Supervision Environment Specialist conducted a study of existing documentation, based on which audit checklists were developed, main approaches were identified and, together with the engineer of the Lot 1 contractor, post-construction environmental audit was conducted.

35. During the environmental audit, it has been noted that the dismantling and clean-up of the Lot 1 contractor camp site and vicinity were completed.

36. Based on the documents studied, a checklist for the Post-Construction Environmental Audit was developed (see Annex 2). The said audit was conducted on 10 March 2024.

37. To assess the progress of post-construction clean-up, restoration, and rehabilitation activities, the ADB safeguards team, along with RD's safeguards, conducted a field visit on Thursday, 06 June 2024.

3.3 Issues Tracking (Based on Non-Conformance Notices)

38. N/A. Since all construction activities were already completed Non-compliance Notice was not issued during the reporting period, January-June 2024.

3.4 Trends

39. During the conduct of the environmental audit, it was noted that construction equipment as well as construction materials and waste were completely removed.

3.5 Unanticipated Environmental Impacts or Risks

40. No unanticipated environmental impacts observed during the reporting period.

4. RESULTS OF ENVIRONMENTAL MONITORING

4.1 Overview of Monitoring Conducted during Current Period

41. Environmental monitoring started immediately after the commencement of civil works in September 2018. Due to the fact that the construction activities were completed in the reporting period, instrumental measurements of quality indicators of the environment were not carried out.

4.2 Summary of Monitoring Outcomes

42. Last parametric measurements have been carried out on 04.07.2020. During the reporting period the construction contractor for Lot 1 has not conducted instrumental monitoring measurements.

4.3 Material Resources Utilization

4.3.1 Current Period

43. N/A. No data on material resources utilization were provided since all construction activities are already completed.

4.4 Health and Safety

44. N/A.

4.4.1 Community Health and Safety

45. N/A.

4.4.2 Workers Safety and Health

46. N/A.

4.5 Training

47. N/A.

4.6 Grievance Redress Mechanism

48. No new complaints were recorded during the reporting period.

49. The Grievance Redress Commission (GRCN) was formed by the order of the Chairman of the RD as a permanent and functional informal structure, engaging personnel of RD from all Divisions to work on LAR issues and complaint resolution. This includes the top management of the RDMRDI, safeguard or LAR units, legal other relevant Divisions (depending on the specific structure of the IA). The GRCN is involved in Stage 2 of the grievance resolution process. The order states that, if necessary, a representative of local authorities, NGOs, auditors, Aps and any other persons or entities can be included in the Commission as its members.

50. The project's grievance redress mechanism was notified on 26.01.2027.

51. For the Lot 1 There is no open complaint.

52. For Lot 2 from three unresolved complaints all of them are on technical hold, related to the Damage to Infrastructure / Assets. The tentative timeline for resolving these complaints is July 30, 2024.

53. Since the Lot 2 contractor has left the project, RD has the close communication with the local Municipality representatives as well as the project manager of the Secondary Road Project from RD's side communicates closely with the Aps.

54. For lot 2 List of complaints on the Technical Hold are presented in Table 6

Table 6: RD's List of Complaints on the Technical Hold

Name & contact of Complainant	Complaint Category	Complaint Description	Resolution Description
Temur Kakiashvili	Damage to Infrastructure / Assets	On 17.05.2021 Letter. The AP complains that due to the construction works his land plot has been damaged and become unusable, therefore he demands relevant compensation.	On 20.05.2021 the Letter was dispatched to the "JV of Pyunghwa Engineering Consultants Ltd and Yooshin Engineering Corporation and Roads Rehabilitation and Modernization Supervision Direction Ltd-" for further detail study and provide position. On 20.05.2021 RD's Letter to the Citizen. RD explain in its letter that Department instructed the

			CC and CSC to study the issue in detail which requires some time and AP will be informed about the results additionally. On 04.01.2022 RD's Letter to Citizen. In June 2024 the issue was discussed by the Grievance Redress Commission of the Department. Committee made the decision of the acquisition of the land plot. The land owner Temur Kakiashvili passed away 6 months ago. The new land owner expressed the readiness to conclude the contract. The estimate timeline to finalize the issue and conclude the contract is 30 July, 2024.
Roin Nozadze	Damage to Infrastructure / Assets	According to Complainant, his house located on the plot which is bordered by a river. During the construction works, the riverbed was broken and it became impossible to enter his yard. A landslide process has been developed. The complainant requests to arrange a crossing and reinforce the riverbed with a dam. In addition, he has second land plot on which 2000m. Of bulk land was dumped by the construction company during the construction works, without any agreement. As he demand to study the given issue.	On 24.06.2021 The letter was dispatched to the "JV of Pyunghwa Engineering Consultants Ltd and Yooshin Engineering Corporation and Roads Rehabilitation and Modernization Supervision Direction Ltd" and "Akkord Industry Construction Investment Corporation OJSC" for further detail study and provide the problem solve ways. On 23.06.2021. RD's interim letter to Complainant. On 27.12.2021 RD's Letter to Citizen. RD is going to discuss the mentioned issue on the upcoming Grievance Redress Commission, which is planned to held on 30th of July, 2024
Madona Bantsadze	Damage to Infrastructure / Assets	The citizen complains that two walnut trees were cut down and the land she owned was damaged, which was not in the development zone of	The issue is being discussed in the court. After the trial, the department will get acquainted with the court decision and will act accordingly. The estimate

		the project. Complainant's demand is to solve the mentioned issue in time and to get compensation for the over-cut walnut trees and the land plot.	timeline for the finalization of the issue is July, 2024
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55. It should be noted, that Section 2 for the Secondary Road Improvement Project is being removed from the SRIP Loan Agreement. The contract of the supervising company “Pyunchwa” (Hereinafter – “Engineer”) on the Section 2 has also been completed, accordingly, Engineer will close all of the complaints for the Section II, being on the Technical Hold, the reason is the unchanged situation on the real estate of the complainants.

5 FUNCTIONING OF THE SEMP

5.4 SEMP Review

56. SEMP for LOT 1 was approved on 12.02.2018.

57. SEMP has been updated according to ADB’s requirements and include anti-COVID –19 Measures.

6 GOOD PRACTICE AND OPPORTUNITY FOR IMPROVEMENT

6.4 Good Practice

58. The Lot 1 post-construction environmental audit was conducted at the following locations: (i) 25-kilometer section of the project road; (ii) construction camp; and (iii) temporary bulk material storage areas.

59. Construction activities for Lot 1 of the project were completed on 31 May 2023. During the audit, it was observed the Lot 1 road sections was fully paved . Based on visual inspection, the existing pavement was not damaged. There were no construction debris in the surrounding areas.

6.5 Opportunities for Improvement

60. N/A

7 SUMMARY AND RECOMMENDATIONS

7.4 Summary

61. All civil works for Lot 1 were completed on 31 May 2023. The defects notification period will end on 31 May 2025.

62. Since all construction activities for Lot 1 were already completed Non-compliance Notice was not issued during the reporting period, January-June 2024.

63. The remaining construction activities of Lot 2 will be implemented with funding from the Georgian state budget;

64. During the reporting period for Lot 1, the process of correcting the deficiencies was ongoing.

7.5 Recommendations

65. The non-compliances reported in the SAEMRs have been satisfactorily addressed. The areas used by the 2 contractors have been clean up, rehabilitated and restored. There are no other non-compliances identified during the reporting period.

ANNEXES:

Annex 1: Site Photos

Date of site visit: 06.06.2024

Road signs



Lego Blocks



Bus Stops



Drainage systems



Annex 2: Post Construction Environmental Audit Report for Lot 1 and Conditions Report for Lot 2

Loan No: 3524
Date of Report: June 2024

GEO: Secondary Road Improvement Project Rehabilitation of Dzirula–Kharagauli–Moliti–Pona–Chumateleti Secondary Road Section (50Km)

Post Construction Environmental Audit Report for Lot 1 and Conditions Report for Lot 2 (As of January 2024)



Prepared by: Roads Department of the Ministry of Regional Development and Infrastructure of Georgia for the Asian Development Bank

Document Records

Date	Version	Remarks
March 2024	Draft Report	Prepared by Supervision Consultant submitted to RD
May 2024	Draft Report	Working draft shared with ADB
July 2024	Final Report	Revised report addressing the clarifications and suggestions received from ADB

ACRONYMS AND ABBREVIATIONS

ADB	-	Asian Development Bank
BSG	-	Black Sea Group
BKNP	-	Borjomi-Kharagauli National Park
EIA	-	Environmental impact assessment
EMP	-	Environmental management plan
GRM	-	Grievance redress mechanism
IEE	-	Initial environmental examination
km	-	Kilometer
MoEPA	-	Ministry of Environmental Protection and Agriculture
PCEAR	-	Post-construction environmental audit report
PIU	-	Project implementation unit
RD	-	Roads Department
SSEMP	-	Site specific environmental management plan
SPS	-	Safeguard Policy Statement
TSEMP	-	Topic specific environmental management plan
AP		Affected Person
CSC		Construction Supervision Consultant
PPE		Personal Protection Equipment

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I. INTRODUCTION

A. Project Background

1. The GEO Secondary Road Improvement Project aims to rehabilitate a road which extends for about 50 kilometers from Dzirula to Chumateleti via Kharagauli in Central Georgia to two-lane all-weather standard, including several short access roads to the nearby national park and to Kharagauli and other railway stations. The outcome will be increased mobility and accessibility of the residents of Kharagauli municipality and tourists visiting the project area by reducing vehicle operating costs and providing time savings for road users.
2. The project is classified as Category B per ADB Safeguard Policy Statement (SPS). The draft initial environmental examination (IEE) was prepared in August 2016 and updated in February 2017. Both the draft and final IEEs were disclosed on ADB website. According to the IEEs, the Borjomi-Kharagauli National Park (BKNP) is 1.4 kilometers (km) from the project's existing road and is separated by a river gorge, which prevent the transposition of flora and fauna. Therefore, the IEE concluded that the project will have no direct impacts on the biodiversity of the BKNP. The recommended environmental mitigation measures and monitoring activities set out in the EMP cover the preconstruction, construction, and operation stages of the project.
3. The project was divided into two lots, each about 25 km long. Details for each lot are as follows:

Table 1: Information on ADB-funded Civil Works Lots 1 and 2

Lot	Scope of Work	Name of Contractor	Civil Works Start Date	Civil Works End Date	Status
Lot 1	Dzirula (km 0+000) to Moliti (km 24+620)	Black Sea Group (BSG)	18 Sep 2018	31 May 2023	Civil works completed. The defects notification period covers 24 months and will end on 31 May 2025.
Lot 2	Moliti (km 24+620) to Chumateleti (km 50+244)	Akkord Industry Construction Investment Corporation OJSC	31 May 2019	Contract terminated on 3 Nov 2021	Only 8% civil works completed

4. **Lot 1.** The civil works contract for Lot-1 (Dzirula-Moliti Road) was awarded on 04 December 2017 to Black Sea Group (BSG) (referred to as Lot 1 contractor). Figure 1 shows the Lot 1 project location. The project design review and construction activities commenced on 18 September 2018. The scope of Lot 1 civil works are as follows:

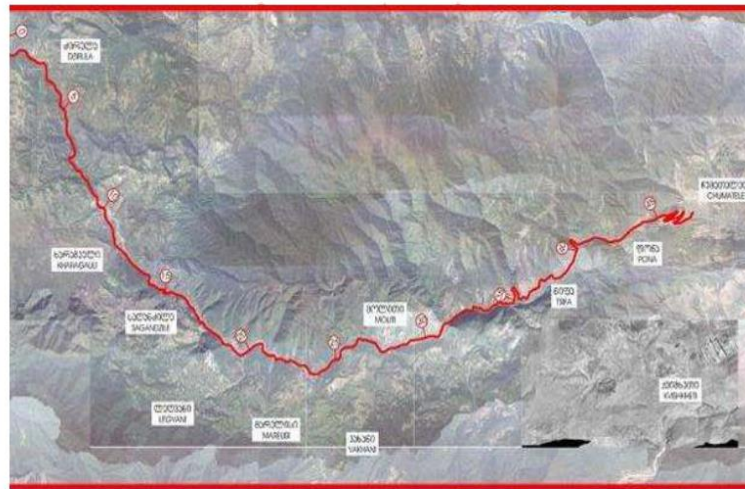
- Rehabilitate and pavement of the project road from Dzirula to Kharagauli according Georgian National Standard for Public Motor Roads (SST Gzebi 2009), Geometrical and Structural Requirements with 40 km/h design speed. The pavement within Kharagauli town is planned to execute minimum 4cm asphalt surface course after milling over the area.
- Replacement or repairing of 9 bridges and 102 culverts.
- Construction of side drains and other drainage structures.

- Figure 1: Map of Project Road - Lot 1**



6. **Lot 2.** The civil works contract for Lot 2 (Moliti-Chumateleti Road) was awarded on 04 December 2018 to AKKORD ICIC (referred to as Lot 2 contractor). Figure 2 shows the Lot 2 project location.

Figure 2: project Location – Lot 2



7. The scope of Lot 2 civil works are as follows:

- Rehabilitation and pavement of the project road from Moliti to Chumateleti according to Georgian National Standard for Public Motor Roads (SST Gzebi 2009), Geometrical and Structural Requirements with a design speed of 40km/h.
- Construction of 13 new bridges
- Construction of 86 pipe culverts and 6 box culverts.
- Construction of side drains and other drainage structures.
- Provision of retaining walls and river protection measures, where necessary.
- Provision of adequate road signing and marking.
- Provision of safety barriers such as guardrail.

8. The Lot 2 started mobilization in May 2019 and set up a construction office at Chumateleti. The Lot 2 contract was terminated by the Roads Department on 3 November 2021. Activities that were undertaken by Lot 2 contractor in the project site include: (i) construction office and workers facilities in Chumateleti; (ii) vegetation clearance; (iii) earthworks; (iv) drainage works; (v) construction of retaining structures; (vi) bridge works, (vii) new bypass road section and install gabion boxes.

9. The Lot 2 contractor abandoned the project sites in November 2021. The Roads Department announced tender for Lot 2 several times from 2022 to 2023.

10. The Lot 2 is being removed from the SRIP Loan Agreement. In October 2023, the Roads Department sent a request to the Ministry of Finance (Hereinafter –“MOF”) and respectively MOF sent a request to ADB to introduce the necessary adjustments to the Loan Agreement, particularly: a change in the scope, cancellation of the loan amount, and modification of the loan closing date. Meanwhile, Section 2 was re-tendered and the contract was signed under the State budget financing per the state procurement procedures, the civil works on Lot 2 are ongoing.

B. Purpose of the Report

11. This report is prepared for the rehabilitation of Dzirula – Kharagauli – Moliti – Pona – Chumateleti Secondary Road Section (50Km) to provide (i) post-construction environmental audit of completed Lot 1; and (ii) conditions report for Lot 2.

II. ENVIRONMENTAL SAFEGUARDS COMPLIANCE

A. Safeguard Assessment Reports

12. **IEEs.** Following the ADB SPS requirements, a draft initial environmental examination (IEE) was prepared in August 2016 and updated in February 2017. Both the draft and final IEEs were disclosed on ADB and project websites. The reports are available for download at (i) ADB project website: <https://www.adb.org/projects/46375-002/main>; and (ii) Roads Department website: http://www.georoad.ge/uploads/files/Linked-9-IEE-for-GEO-Secondary-Road-Improvement-Project_Final_17Feb2017_Track_Change.pdf

13. During the project design review by the Lot 1 contractor, it has been confirmed that the project will have no direct impacts on the biodiversity of the BKNP. However, the Lot 1 contractor still selected appropriate access roads to avoid disturbance of the protected area and provided contractor's staff with special training to prevent poaching.

14. **National Environmental Impact Assessment.** The environmental impact assessment (EIA) following Government of Georgia environmental regulations was submitted to the Ministry of Environment and Natural Resources Protection (MoEPA) for approval by the Road Department of Georgia on 20 November 2017, and it was approved by MoEPA on 1 December 2017.

B. Permits and Clearances

15. Lot 1 and Lot 2 contractors obtained all relevant required permits/clearances. The required permits and clearances, statuses, and validity are presented in Table 2. The details of compliance to the conditions of the permits and clearances are reported in the semi-annual environmental monitoring reports (SAEMRs).

Table 2. Permits and Clearances Obtained by Lot 1 and Lot 2 Contractors

Description	Date of approval
A. Lot 1 Contractor	
Permit for the emissions of hazardous substances into ambient air from stationary sources for batching plant.	Approved Letter N3389/0; 24.04.18
Waste management plan	Approved Letter N43/6680; 22.10.18
Permit for the Surface Water extraction	Approved Letter № 587/01; 10.07.18
B. Lot 2 Contractor	

Description	Date of approval
Permit for the emissions of hazardous substances into ambient air from stationary sources for batching plant.	Approved Letter N5273/01; 20.06.18
Waste management plan	Approved Letter N43/6680; 22.10.18
Permit for the tree cutting	Approved Letter N5/7515; 05.02.2020

C. Site-specific and Topic-specific Environmental Management Plans

16. Table 3 shows the list of site-specific environmental management plans (SSEMP) and topic-specific environmental management plan (TSEMP) submitted by the contractors to the Roads Department. These plans are detailed and set out how the project will address potential issues identified in the impact assessment process and ensure that specific mitigation and monitoring measures are fully implemented.

Table 3: Site-Specific and Topic Specific Environmental Management Plans Submitted to the Roads Department

No	Plan / Method Statement
Lot 1	SSEMP and TSEMP approved on 02.12.2018
1	Site Specific Environmental Management Plan
2	Environmental Management Plan (updated)
3	Waste Management Plan (Construction Phase)
4	Emergency Response Plan
5	Spill Management Plan
6	Wastewater Management Plan
7	Chance Find Procedure
8	Labor Management Procedures
9	Clearance Cultivation Restoration Plan
10	Aggregate and Borrow Pit Management Plan
11	Topsoil Disposal and Erosion Management Plan
12	Air Quality Management Plan
14	Bridge Construction Management Plan
15	Spoil Disposal Management Plan
15	Method Statement for Temporary Roads
17	Method Statement for River Crossings
Lot 2	SSEMP and TSEMP approved on 30. 04. 2019
1	Site Specific Environmental Management Plan
2	Environmental Management Plan (updated)
3	Waste Management Plan (Construction Phase)
4	Emergency Response Plan
5	Spill Management Plan
6	Wastewater Management Plan
7	Chance Find Procedure
8	Labor Management Procedures
9	Clearance Cultivation Restoration Plan
10	Aggregate and Borrow Pit Management Plan
11	Topsoil Disposal and Erosion Management Plan
12	Air Quality Management Plan
13	Bridge Construction Management Plan

14	Spoil Disposal Management Plan
15	Method Statement for Temporary Roads
16	Method Statement for River Crossings

D. Safeguard Implementation Arrangement

17. **Project Implementation Unit.** The Roads Department has assigned an environment officer to oversee the compliance of the project with ADB SPS and applicable national environmental regulations. The environment officer was supported by the supervision consultant's international environment specialist (intermittent) and national environment specialist (intermittent). They were demobilized in June 2024. The Lot 1 contractor appointed a full-time safeguard staff who is engaged until defects notification period. The Lot 2 contractor appointed a full-time safeguard staff until its contract termination date.

18. **Supervision Engineer.** The supervision consultancy services contract was awarded to JV of Pyunghwa Engineering Consultants Ltd, Yoshin Engineering Corporation and Roads Rehabilitation and Modernization Supervision Direction Ltd for three phases of the project:

- Phase 1 – Design review, to be completed in a period of five weeks.
- Phase 2 – Construction Supervision and Project Management. The period is for 47 months.
- Phase 3 – Defects Notification Period, two years (24 months).

19. The environment-related tasks of the supervision consultancy services contract include:

- Ensure that the provisions of the approved Environmental Management Plan are reflected;
- in the Contractor's contract site environmental management plan (SEMP) prior to its acceptance by the Engineer, the Employer and ADB, and there after ensure that the Contractor complies in every respect with the provisions of the SEMP;
- Carry out an environmental auditing for the construction period, regularly supervise the environmental monitoring and submit periodic reports based on the monitoring data and laboratory analysis reports. These reports will be included as an annex to the Consultant's Monthly Report;
- Develop a program for hands-on training of Contractor's staff in implementing the SEMP. Conduct Post-Construction Environmental Audit and prepare post-construction environmental audit report with filled environmental audit checklist;
- Collection of photo materials of the condition of sites abandoned by the contractor;

20. **Contractor.** The contractors engage full-time staff to be responsible for day-to-day implementation of the SSEMPs and TSEMPs.

21. Table 4 provides the detailed information on the environmental safeguards team as of March 2024.

Table 4: Staff Involved In Environmental Safeguards

Organization	Position	Name
ADB	Georgia Country Focal Principal Environmental Specialist ADB Head Office	Ninette R. Pajarillaga

Organization	Position	Name
	Safeguards Officer ADB Georgia Resident Mission	Nino Nadashvili
	National Environmental Consultant ADB RETA 10110	Giorgi Kobaladze
Roads Department	Environmental Safeguard Consultant under ADB-financed Projects	Luiza Bubashvili Cell: +995595219141 Web: www.georoad.ge likabubashvili@yahoo.com
Construction Lot 1 Contractor BSG	Environmental Specialist	Levan Kereselidze Cell: 599004082
Supervision Consultant Pyunghwa Engineering Consultants Ltd, Yoshin Engineering Corporation and Roads Rehabilitation and Modernization Supervision Direction Ltd	Environmental Specialist	Shalva Bosikashvili sbosikashvili@yahoo.com Cell: +995 595 116041

E. Semi-annual Environmental Monitoring Reports

22. Environmental monitoring and reporting covered both Lot 1 and Lot 2 packages. A total of 11 semi-annual environmental monitoring reports (SAEMRs) have been prepared and disclosed on ADB and project websites.

23. The SAEMR covering period July to December 2021 reported conditions of worksites as left by the Lot 2 contractor.¹ These include (i) construction materials (precast concrete, rebar, timber, sand and gravel) left uncontrolled on the ground surface alongside the road; (ii) different waste is scattered alongside the road (spoil, timber, tree roots, domestic solid waste etc.); (iii) deep cuts, trenches and pits, are without relevant barriers and warning signs; (iv) oil drums outdoor, leaking backhoe and scattered waste at the construction base; and (v) cracks on the ground surface at the spoil disposal area (landslide hazard). The SAEMR covering period July to December 2022 reported that the recorded non-compliances of Lot 2 contractor were addressed and corrected by the local municipality.²

24. Based on information from the last SAEMR covering period July to December 2023, there were 4 non-compliances by Lot 1 contractor which included improper handling of both hazardous and non-hazardous waste at the construction site. It should also be noted during environmental monitoring conducted in December 2023, construction activities had been completed and camp dismantling was underway. All 4 non-compliances had been corrected by Lot 1 contractor during preparation of this post-construction environmental audit in March 2024. Thus, the project has no open non-compliances.

F. Grievance Redressal Mechanism

25. The Grievance Redress Commission (GRCN) was formed by the order of the Chairman of the RD as a permanent and functional informal structure, engaging personnel of RD from all Divisions to work on LAR issues and complaint resolution. This includes the top management of the RDMRDI, safeguard or LAR units, legal other relevant Divisions (depending on the specific

structure of the IA). The GRCN is involved in Stage 2 of the grievance resolution process. The order states that, if necessary, a representative of local authorities, NGOs, auditors, Aps and any other persons or entities can be included in the Commission as its members.

26. The project's grievance redress mechanism was notified on 26.01.2027.
27. During the construction phase majority of the received complaints by RD are related to "Inclusion in LARP" and "Damage to Infrastructure/Assets"
28. For the Lot 1 There is no open complaint.
29. For Lot 2 from three unresolved complaints all of them are on technical hold, related to the Damage to Infrastructure / Assets. The tentative timeline for resolving these complaints is July 30, 2024.
30. Since the Lot 2 contractor has left the project, RD has the close communication with the local Municipality representatives as well as the project manager of the Secondary Road Project from RD's side communicates closely with the Aps.
31. For lot 2 List of complaints on the Technical Hold are presented in Table 5.

Table 5: RD's List of Complaints on the Technical Hold

Name & contact of Complainant	Complaint Category	Complaint Description	Resolution Description
Temur Kakiashvili	Damage to Infrastructure / Assets	On 17.05.2021 Letter. The AP complains that due to the construction works his land plot has been damaged and become unusable, therefore he demands relevant compensation.	On 20.05.2021 the Letter was dispatched to the "JV of Pyunghwa Engineering Consultants Ltd and Yooshin Engineering Corporation and Roads Rehabilitation and Modernization Supervision Direction Ltd-" for further detail study and provide position. On 20.05.2021 RD's Letter to the Citizen. RD explain in its letter that Department instructed the CC and CSC to study the issue in detail which requires some time and AP will be informed about the results additionally. On 04.01.2022 RD's Letter to Citizen.

			In June 2024 the issue was discussed by the Grievance Redress Commission of the Department. Committee made the decision of the acquisition of the land plot. The land owner Temur Kakiashvili passed away 6 months ago. The new land owner expressed the readiness to conclude the contract. The estimate timeline to finalize the issue and conclude the contract is 30 July, 2024.
Roin Nozadze	Damage to Infrastructure / Assets	According to Complainant, his house located on the plot which is bordered by a river. During the construction works, the riverbed was broken and it became impossible to enter his yard. A landslide process has been developed. The complainant requests to arrange a crossing and reinforce the riverbed with a dam. In addition, he has second land plot on which 2000m. Of bulk land was dumped by the construction company during the construction works, without any agreement. As he demand to study the given issue.	On 24.06.2021 The letter was dispatched to the "JV of Pyunghwa Engineering Consultants Ltd and Yooshin Engineering Corporation and Roads Rehabilitation and Modernization Supervision Direction Ltd" and "Akkord Industry Construction Investment Corporation OJSC" for further detail study and provide the problem solve ways. On 23.06.2021. RD's interim letter to Complainant. On 27.12.2021 RD's Letter to Citizen. RD is going to discuss the mentioned issue on the upcoming Grievance Redress Commission, which is planned to held on 30th of July, 2024
Madona Bantsadze	Damage to Infrastructure / Assets	The citizen complains that two walnut trees were cut down and the land she owned was damaged, which was not in the development zone of the project. Complainant's demand is to solve the mentioned issue in time and to get	The issue is being discussed in the court. After the trial, the department will get acquainted with the court decision and will act accordingly. The estimate timeline for the finalization of the issue is July, 2024

		compensation for the over-cut walnut trees and the land plot.	
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32. It should be noted, that Section 2 for the Secondary Road Improvement Project is being removed from the SRIP Loan Agreement. The contract of the supervising company “Pyunchwa” (Hereinafter – “Engineer”) on the Section 2 has also been completed, accordingly, Engineer will close all of the complaints for the Section II, being on the Technical Hold, the reason is the unchanged situation on the real estate of the complainants.

III. LOT 1 CONTRACTOR POST-CONSTRUCTION ACTIVITIES

33. As for the activities to be carried out after the completion of the construction on Lot I, the construction contractor must: (i) dismantle the construction camp and restore the area; (ii) dismantle the concrete batching plant; and (iii) also dismantle the rebar.

A. Audit Plan Preparation

34. The Supervision Environment Specialist was tasked to conduct a post-construction environmental audit and prepare a report. In order to realize the task, the Supervision Environment Specialist conducted a study of existing documentation, based on which audit checklists were developed, main approaches were identified and, together with the engineer of the Lot 1 contractor, post-construction environmental audit was conducted.

Based on the documents studied, a checklist for the Post-Construction Environmental Audit was developed (see Annex 1). The said audit was conducted on 10 March 2024.

B. Lot 1 Road Section

35. The Lot 1 post-construction environmental audit was conducted at the following locations: (i) 25-kilometer section of the project road; (ii) construction camp; and (iii) temporary bulk material storage areas.

36. The audit phase focused on the construction camp area, where 4 non-compliances were identified in the previous environmental monitoring phase (December 2023). As indicated in the July-December 2023 Semi-Annual Report, no other non-compliances were identified in the project zone during this period.

37. Construction activities for Lot 1 of the project were completed on 31 May 2023. During the audit, it was observed the Lot 1 road sections was fully paved (Figures 3 and 4). Based on visual inspection, the existing pavement was not damaged. There were no construction debris in the surrounding areas.

Figures 3 and 4: Road Pavement in the Lot 1 Road Section



38. Road signs were installed along the project road (Figures 5 and 6). Throughout the 25 km section of the road, lanes and crossings are also marked.

Figures 5 and 6: Road Signs on and along the Lot 1 Road Section



39. As shown in Figure 7, all 7 bus stops in Lot 1 road section were constructed and the surrounding areas were cleaned and rehabilitated.

Figure 7. Bus Stops Along the Lot 1 Road Sections



40. Figures 8 and 9 show the drainage systems and gratings installed along the Lot 1 road section.

Figures 8 and 9: Drainage systems along the Lot 1 Road Section



41. The construction of the gabions and protective walls envisioned by the project along the project road was also fully completed (Figures 10 and 11). The adjacent areas were cleaned, construction equipment was removed, and the construction company had completely removed construction materials from the area adjacent to the project road.



42. **Conclusion.** The road section, right-of way, and surrounding areas have been cleaned up, restored and rehabilitated. All construction materials and wastes have been removed by the Lot 1 contractor. Implementation of SSEMP and TSEMP is satisfactory. There are no remaining works to be completed.

B. Construction Camp and Storage Areas

43. There are no on-going construction activities. During the environmental audit, it has been noted that the dismantling and clean-up of the Lot 1 contractor camp site and vicinity were completed. Per SAEMR covering period July to December 2023, the 4 non-compliances identified were on the territory of the Lot 1 contractor's construction camp and several locations where bulk materials are stored. The identified non-compliances are related to hazardous waste and other construction materials uncontrollably placed on the construction site. Table 6 provides the information on the 4 non-compliances:

Table 6: Information on Non-Compliances Per SAEMR July to December 2023

	Issues/Concerns (recorded December 2023)	Location
1.	Construction equipment and waste on the construction camp site	Lot 1 contractor's camp
2.	Hazardous waste placed in the camp site unattended	Lot 1 contractor's camp
3.	Waste placed in an uncontrolled manner as well as ancillary buildings	Lot 1 contractor's camp
4.	Uncontrolled placement of bulk materials	Several locations

44. During the conduct of the environmental audit, it was noted that construction equipment as well as construction materials and waste were completely removed. Figures 12 and 13 to show the photos taken in December 2023 during preparation of SAEMR and March 2024 during preparation of the post-construction environmental audit report. Based on the photo-documentation, all 4 non-compliances were addressed satisfactorily.

Figure 12: Construction equipment and waste on the construction camp site (December 2023)	Figure 13: Construction camp during post-construction audit stage (March 2024)
	
Figure 14: Hazardous waste placed in the camp site unattended (December 2023)	Figure 15: The same area showing hazardous wastes removed (March 2024)
	
Figure 16: Waste placed in an uncontrolled manner as well as presence of ancillary buildings (December 2023)	Figure 17: The same area showing the ancillary building and wastes removed (March 2024)



Figures 18 and 19: Areas from which bulk materials have been removed (March 2024)



45. **Conclusion.** The Lot 1 contractor's camp and storage areas for bulk materials have been cleaned up, restored and rehabilitated. There are no remaining works to be completed.

IV. LOT 2 CONTRACTOR SITE CONDITIONS

46. The conditions of the sites as abandoned by the Lot 2 contractor were reported in the SAEMR covering period July to December 2021. Figures 20 to 24 show the site conditions per SAEMR.

Figure 20. Construction materials (precast concrete, rebar, timber, sand and gravel) left uncontrolled on the ground surface alongside the road



Figure 21. Different waste is scattered alongside the road (spoil, timber, tree roots, domestic solid waste, etc)



Figure 22. Deep cuts, trenches and pits, are without relevant barriers and warning signs



Figure 23. Oil drums outdoor, leaking backhoe and scattered waste at the construction base





Figure 24. Cracks on the ground surface at the spoil disposal area (landslide hazard)



47. The SAEMR covering period July to December 2022 reported that the recorded non-compliances of Lot 2 contractor were addressed and corrected by the local municipality. Figures 25 and 26 show the same sites after clean up by the local municipality.

Figure 25. After clean up



Figure 26. After clean up



48. **Conclusion.** The Lot 2 contractor's abandoned areas have been addressed by the local municipality. There are no pending areas used or affected by the project's contractor that will require further clean up.

V. CONCLUSIONS AND RECOMMENDATIONS

49. The project's Lot 1 and Lot 2 contractors have satisfactorily met the environmental safeguard requirements per ADB Safeguard Policy Statement and national regulations. Both contractors obtained the required permits and clearance, and submitted the SSEMPs and TSEMPs. SAEMRs were submitted to ADB and disclosed on ADB and project websites. There are no pending/unresolved complaint on environment, health and safety.

50. The non-compliances reported in the SAEMRs have been satisfactorily addressed. The areas used by the 2 contractors have been clean up, rehabilitated and restored. There are no other non-compliances identified during the post-construction environmental audit stage.

ANNEX 1: POST-CONSTRUCTION ENVIRONMENTAL AUDIT CHECKLIST

Required mitigation measures of enviromental impact	Measures implemented				Comment
	yes	partially	no	N/A	
Is the project site fully restored?	x				
Construction waste and surplus/waste soil removed completely and disposed properly	x				
Hazardous waste removed and disposed properly	x				
Fuels and lubricants spills eliminated	x				
Contractor equipment and machinery removed	x				
All temporary facilities removed and cleaned up	x				
Streets with installed network reinstated to pre-construction or better conditions	x				

