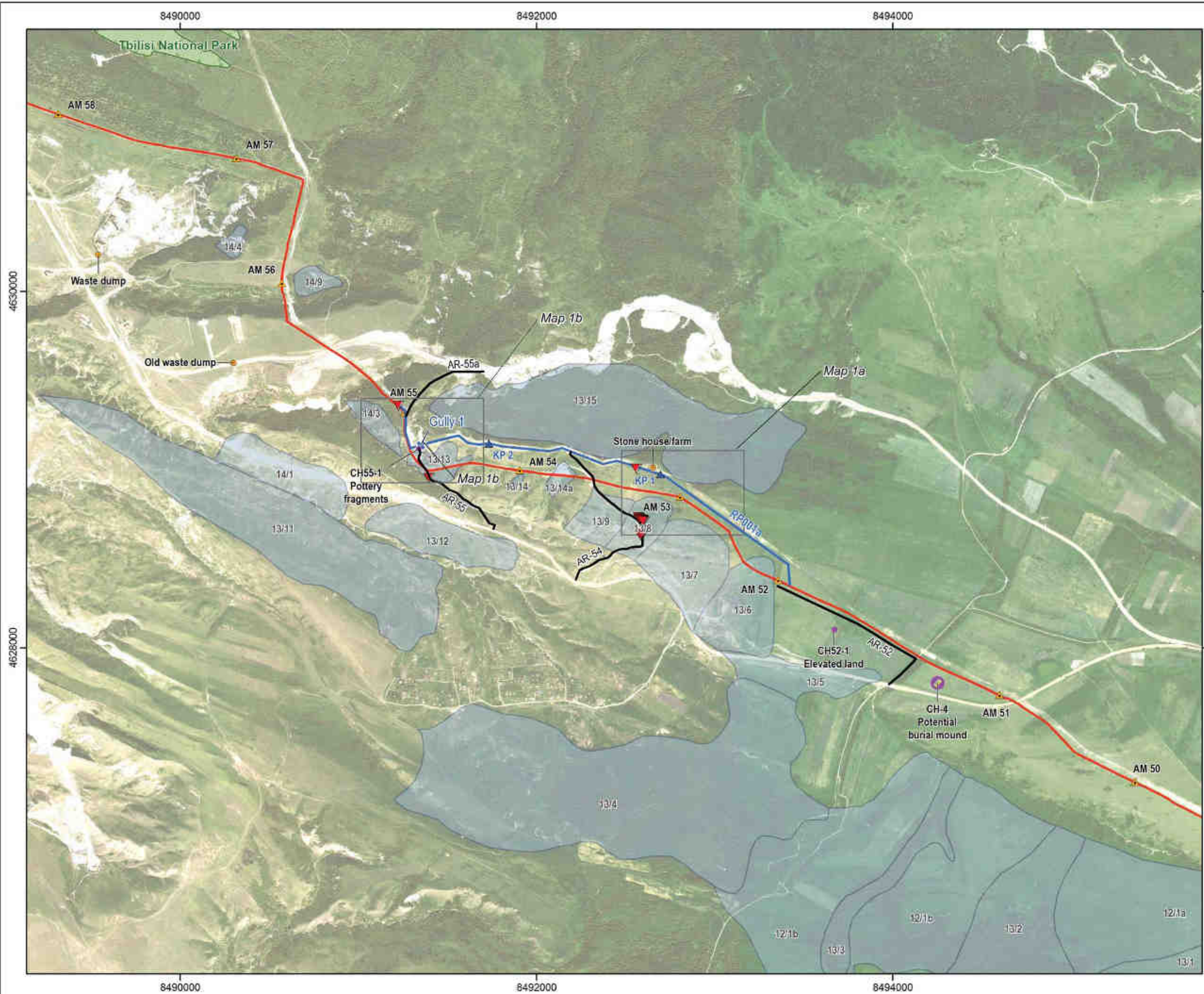


Appendix A Constraint Maps





COORDINATE SYSTEM PARAMETERS
 PROJECTION: GAUSS KRUGER
 ZONE 8
 ELLIPSOID: KRASOVSKY
 GEODETIC DATUM: PULKOVO 1942
 VERTICAL: KRONSTADT (BALTIC
 COORDINATE: SEA) DATUM
 SYSTEM:

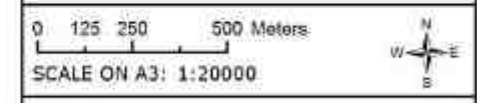
Satellite imagery: BP 2013
 Aerial Imagery: Esri, DigitalGlobe, GeoEye,
 Earthstar Geographics, CNES/Airbus DS,
 USDA, USGS, AEX, Getmapping, Aerogrid, IGN,
 IGP, swisstopo, and the GIS User Community

- LEGEND**
- Existing WREP Route
 - ▲ Aerial Marker
 - WREP SRP Section
 - ▲ RR/RP Kilometre Point
 - WREP-SR Access Roads
 - Cultural Heritage Feature
 - Landslides
 - Protected Area
 - ✕ Watercourse crossings
- HCV Species**
- ▼ GRL

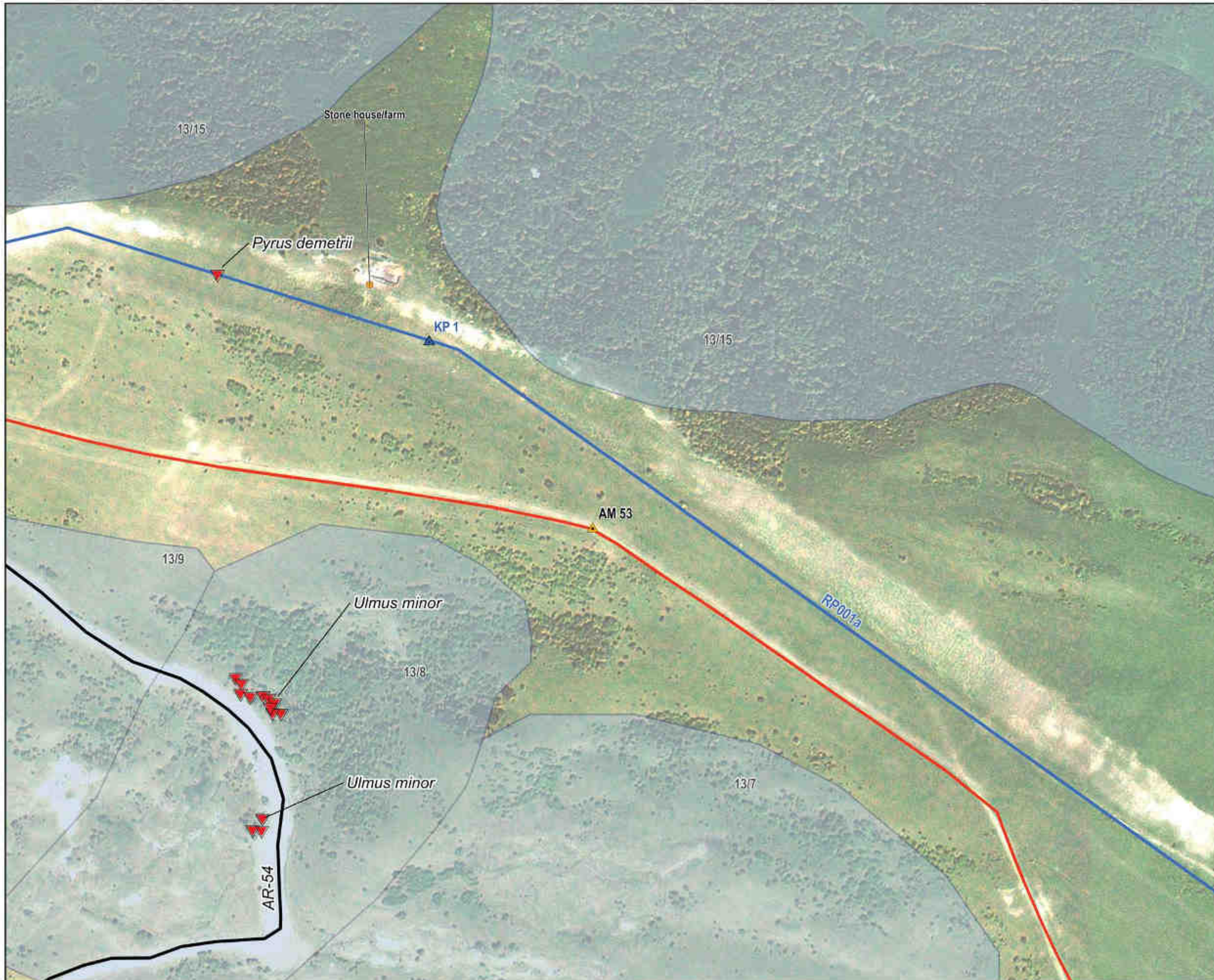


WREP SECTIONAL REPLACEMENT PROJECT

TITLE: Environmental and Social Constraints RP-001a



DRAWING No. Map 1



COORDINATE SYSTEM PARAMETERS
 PROJECTION: GAUSS KRUGER
 ZONE B
 ELLIPSOID: KRASOVSKY
 GEODETIC DATUM: PULKOVO 1942
 VERTICAL COORDINATE SYSTEM: KRONSTADT (BALTIC SEA) DATUM

Satellite imagery: BP 2013
 Aerial imagery: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

LEGEND

- Existing WREP Route
- WREP SRP Section
- ▲ RR/RP Kilometre Point
- Landslides
- ▼ GRL



WREP SECTIONAL REPLACEMENT PROJECT

TITLE: Environmental and Social Constraints RP-001a

0 10 20 40 Meters
 SCALE ON A3: 1:2500

DRAWING No. Map 1a



COORDINATE SYSTEM PARAMETERS
 PROJECTION: GAUSS KRUGER ZONE 8
 ELLIPSOID: KRASOVSKY
 GEODETIC DATUM: PULKOVO 1942
 VERTICAL COORDINATE SYSTEM: KRONSTADT (BALTIC SEA) DATUM

Satellite imagery: BP 2013
 Aerial Imagery: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

- LEGEND**
- Existing WREP Route
 - WREP SRP Section
 - ▲ RR/RP Kilometre Point
 - WREP-SR Access Roads
 - Cultural Heritage Feature
 - Landslides
 - ✱ Watercourse crossings
 - ▼ GRL

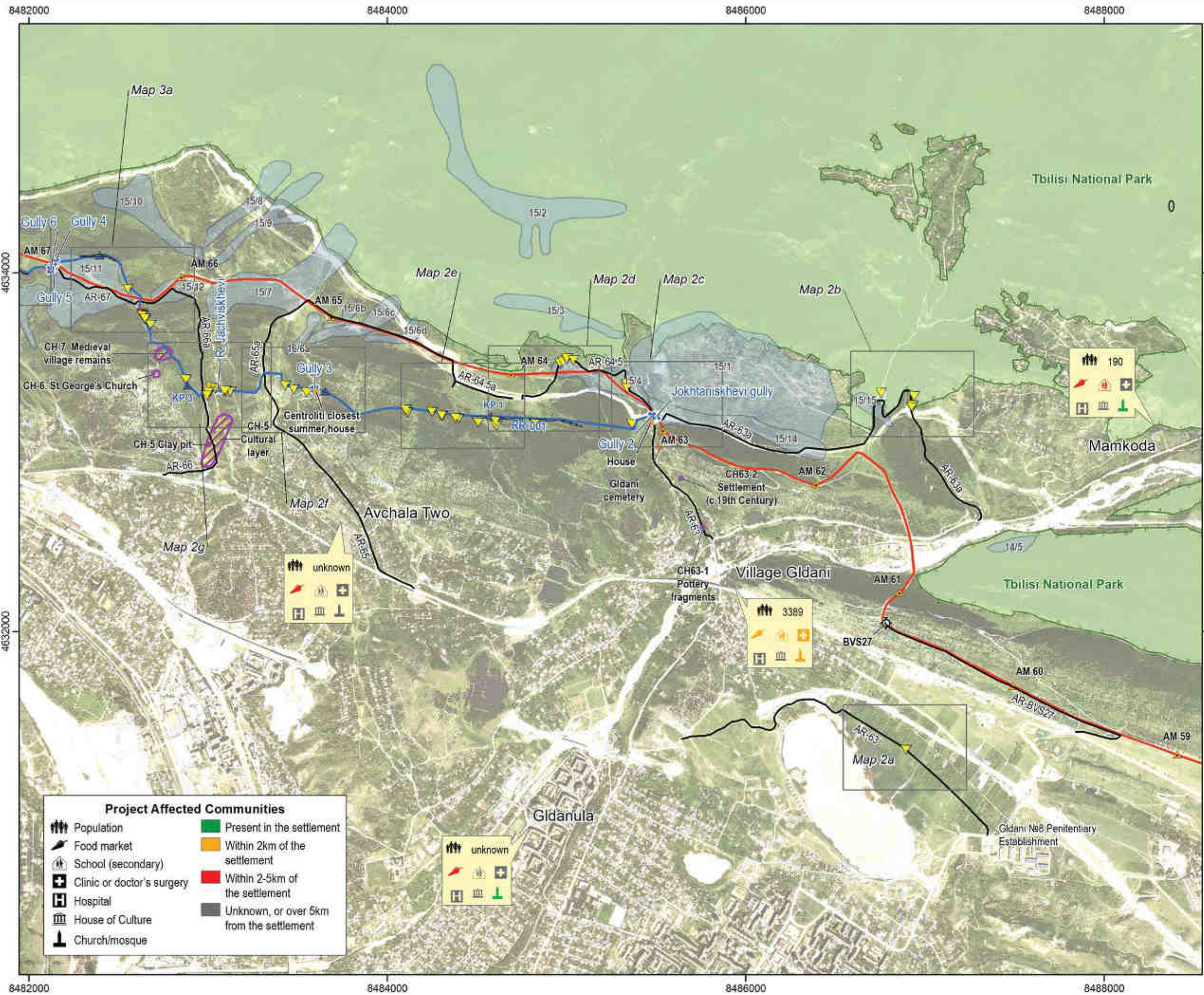


WREP SECTIONAL REPLACEMENT PROJECT

TITLE: Environmental and Social Constraints RP-001a



DRAWING No. Map 1b



COORDINATE SYSTEM PARAMETERS
 PROJECTION: GAUSS KRUGER
 ZONE 8
 ELLIPSOID: KRASOVSKY
 GEODETIC DATUM: PULKOVO 1942
 VERTICAL COORDINATE SYSTEM: KRONSTADT (BALTIC SEA) DATUM

Satellite imagery: BP 2013
 Aerial Imagery: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

LEGEND

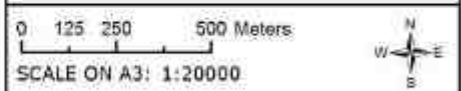
- Existing WREP Route
- ▲ Aerial Marker
- ◊ Block Valve
- WREP SRP Section
- ▲ RR/RP Kilometre Point
- WREP-SR Access Roads
- Cultural Heritage Feature
- Landslides
- Protected Area
- ✕ Watercourse crossings
- HCV Species**
- ▼ CITES
- ▼ GRL
- ▼ GRL&CITES
- Extensive Populations of CITES Species

- Project Affected Communities**
- | | |
|---|--|
| 👤 Population | Present in the settlement |
| 🛒 Food market | Within 2km of the settlement |
| 🎓 School (secondary) | Within 2-5km of the settlement |
| 🏥 Clinic or doctor's surgery | Unknown, or over 5km from the settlement |
| 🏥 Hospital | |
| 🏛️ House of Culture | |
| 🕌 Church/mosque | |



WREP SECTIONAL REPLACEMENT PROJECT

TITLE: Environmental and Social Constraints RR-001






DRAWING No. Map 2



COORDINATE SYSTEM PARAMETERS
 PROJECTION: GAUSS KRUGER
 ZONE 8
 ELLIPSOID: KRASOVSKY
 GEODETIC DATUM: PULKOVO 1942
 VERTICAL: KRONSTADT (BALTIC
 COORDINATE: SEA) DATUM
 SYSTEM:

Satellite imagery: BP 2013
 Aerial imagery: Esri, DigitalGlobe, GeoEye,
 Earthstar Geographics, CNES/Airbus DS,
 USDA, USGS, AEX, Getmapping, Aerogrid, IGN,
 IGP, swisstopo, and the GIS User Community

LEGEND

-  Aerial Marker
-  WREP-SR Access Roads
-  CITES



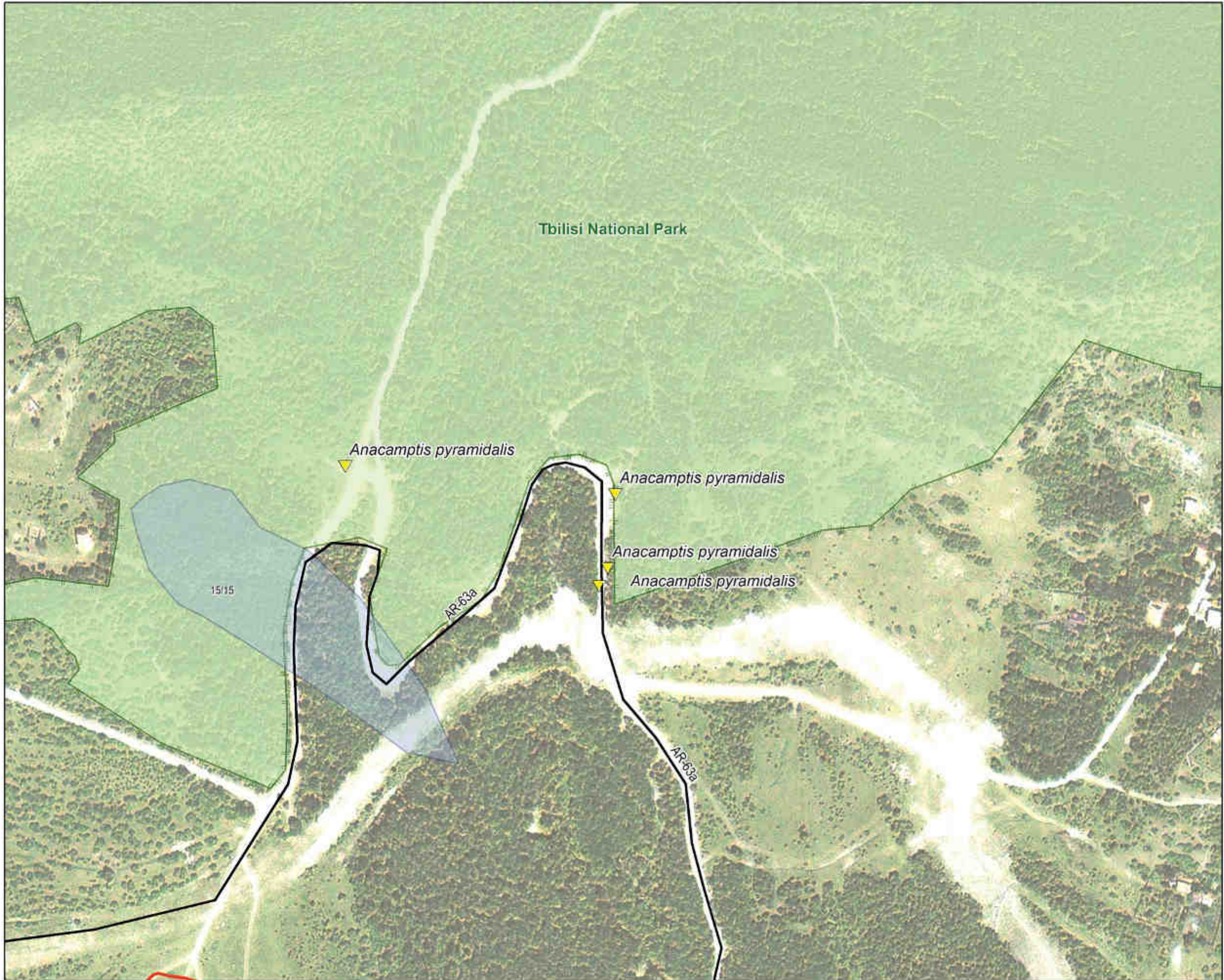
**WREP SECTIONAL
 REPLACEMENT PROJECT**

TITLE: Environmental and Social
 Constraints RR-001

0 10 20 40 Meters
 SCALE ON A3: 1:2500



DRAWING No. Map 2a



COORDINATE SYSTEM PARAMETERS
 PROJECTION: GAUSS KRUGER
 ZONE 8
 ELLIPSOID: KRASOVSKY
 GEODETIC DATUM: PULKOVO 1942
 VERTICAL COORDINATE SYSTEM: KRONSTADT (BALTIC SEA) DATUM

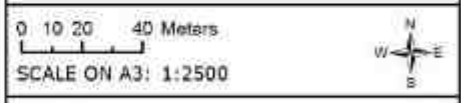
Satellite imagery: BP 2013
 Aerial Imagery: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

- LEGEND**
- Existing WREP Route
 - ▲ Aerial Marker
 - WREP-SR Access Roads
 - Cultural Heritage Feature
 - Landslides
 - Protected Area
 - ▼ CITES

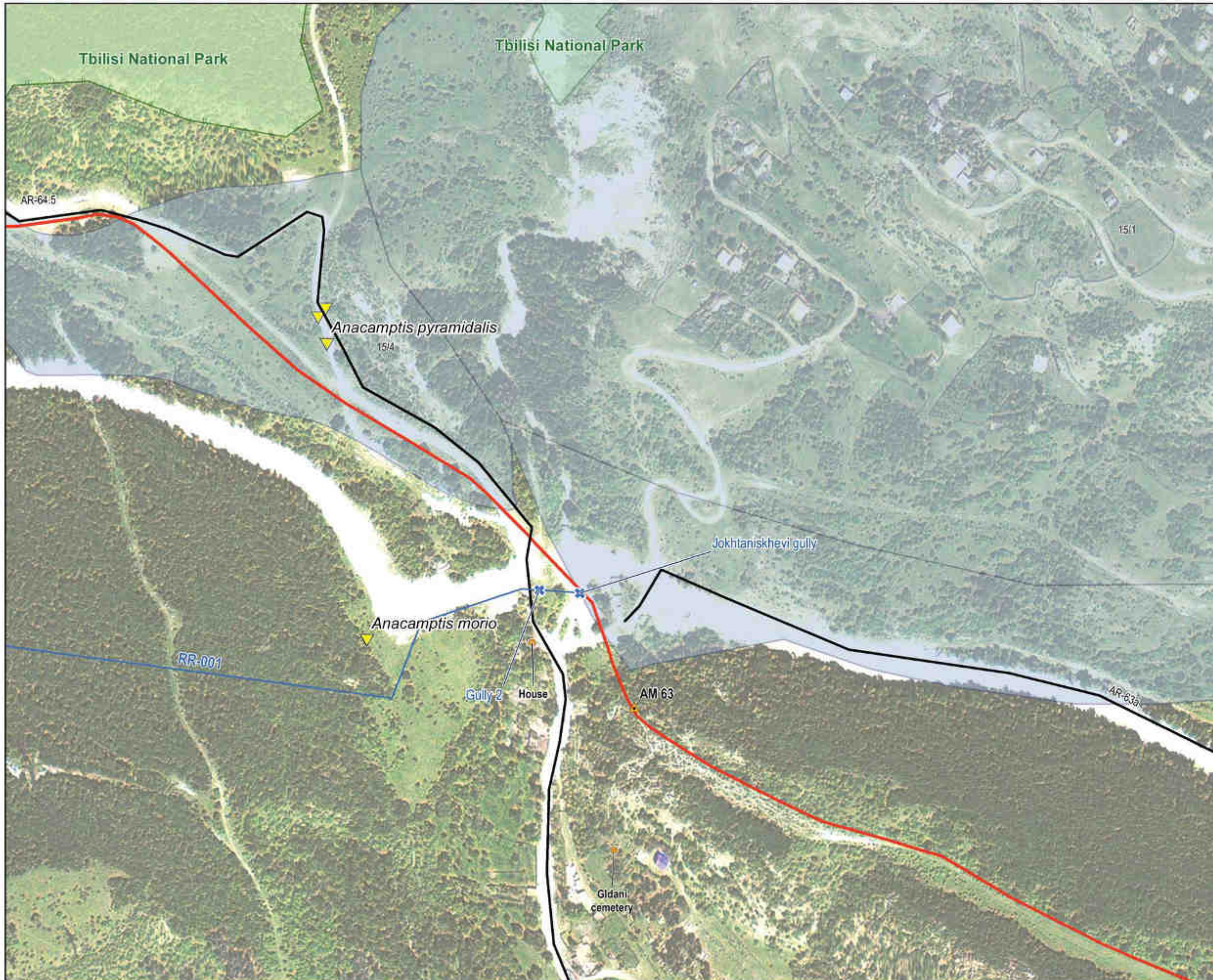


WREP SECTIONAL REPLACEMENT PROJECT

TITLE: Environmental and Social Constraints RR-001



DRAWING No. Map 2b



COORDINATE SYSTEM PARAMETERS
 PROJECTION: GAUSS KRUGER
 ZONE 8
 ELLIPSOID: KRASOVSKY
 GEODETIC DATUM: PULKOVO 1942
 VERTICAL COORDINATE SYSTEM: KRONSTADT (BALTIC SEA) DATUM

Satellite imagery: BP 2013
 Aerial Imagery: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

LEGEND

- Existing WREP Route
- WREP SRP Section
- WREP-SR Access Roads
- Landslides
- Protected Area
- ✖ Watercourse crossings
- ▼ CITES

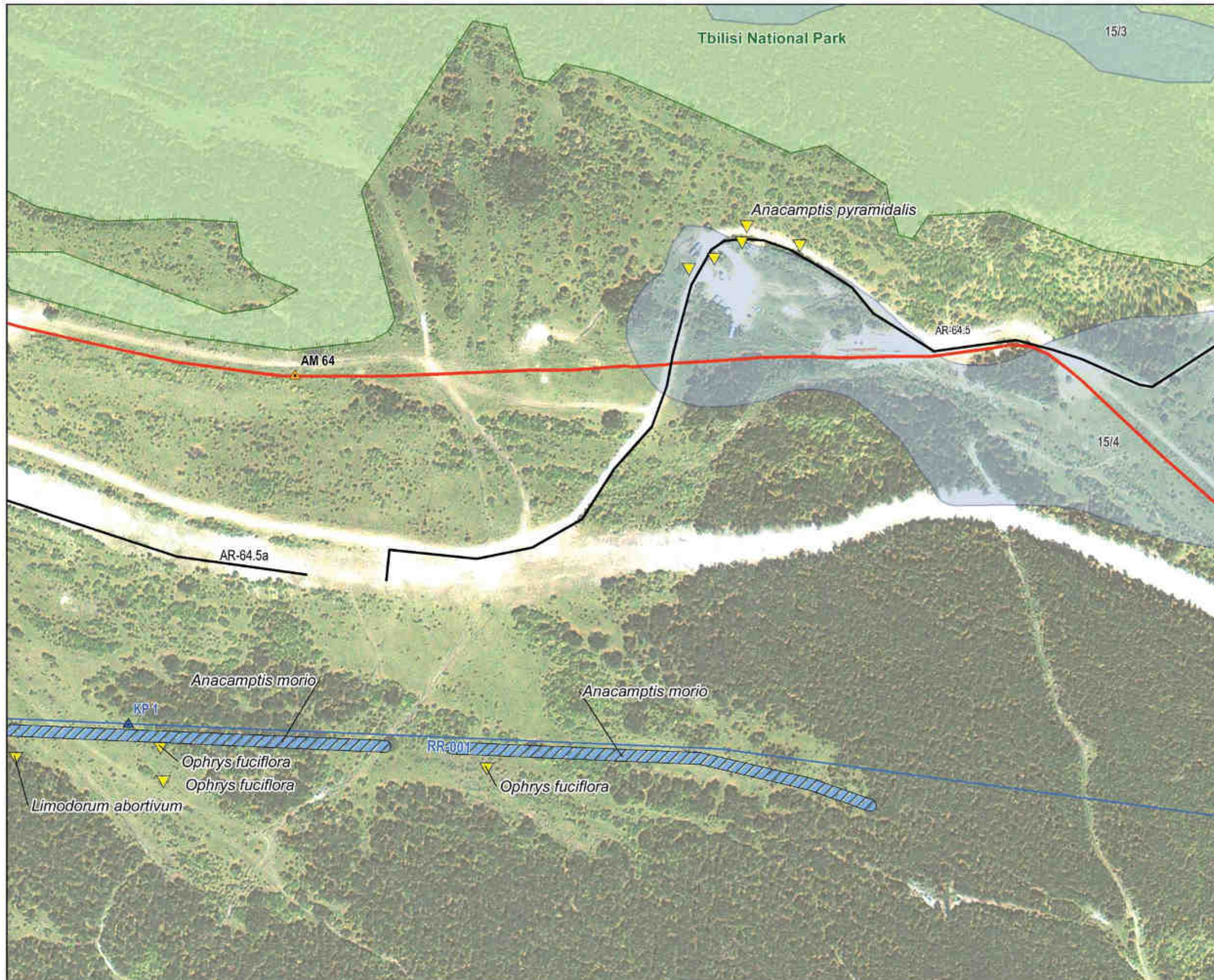


WREP SECTIONAL REPLACEMENT PROJECT

TITLE: Environmental and Social Constraints RR-001



DRAWING No. Map 2c



COORDINATE SYSTEM PARAMETERS
 PROJECTION: GAUSS KRUGER ZONE 8
 ELLIPSOID: KRASOVSKY
 GEODETIC DATUM: PULKOVO 1942
 VERTICAL COORDINATE SYSTEM: KRONSTADT (BALTIC SEA) DATUM

Satellite imagery: BP 2013
 Aerial Imagery: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

LEGEND

- Existing WREP Route
- ▲ Aerial Marker
- WREP SRP Section
- ▲ RR/RP Kilometre Point
- WREP-SR Access Roads
- Landslides
- Protected Area
- ▼ CITES
- Extensive Populations of CITES Species



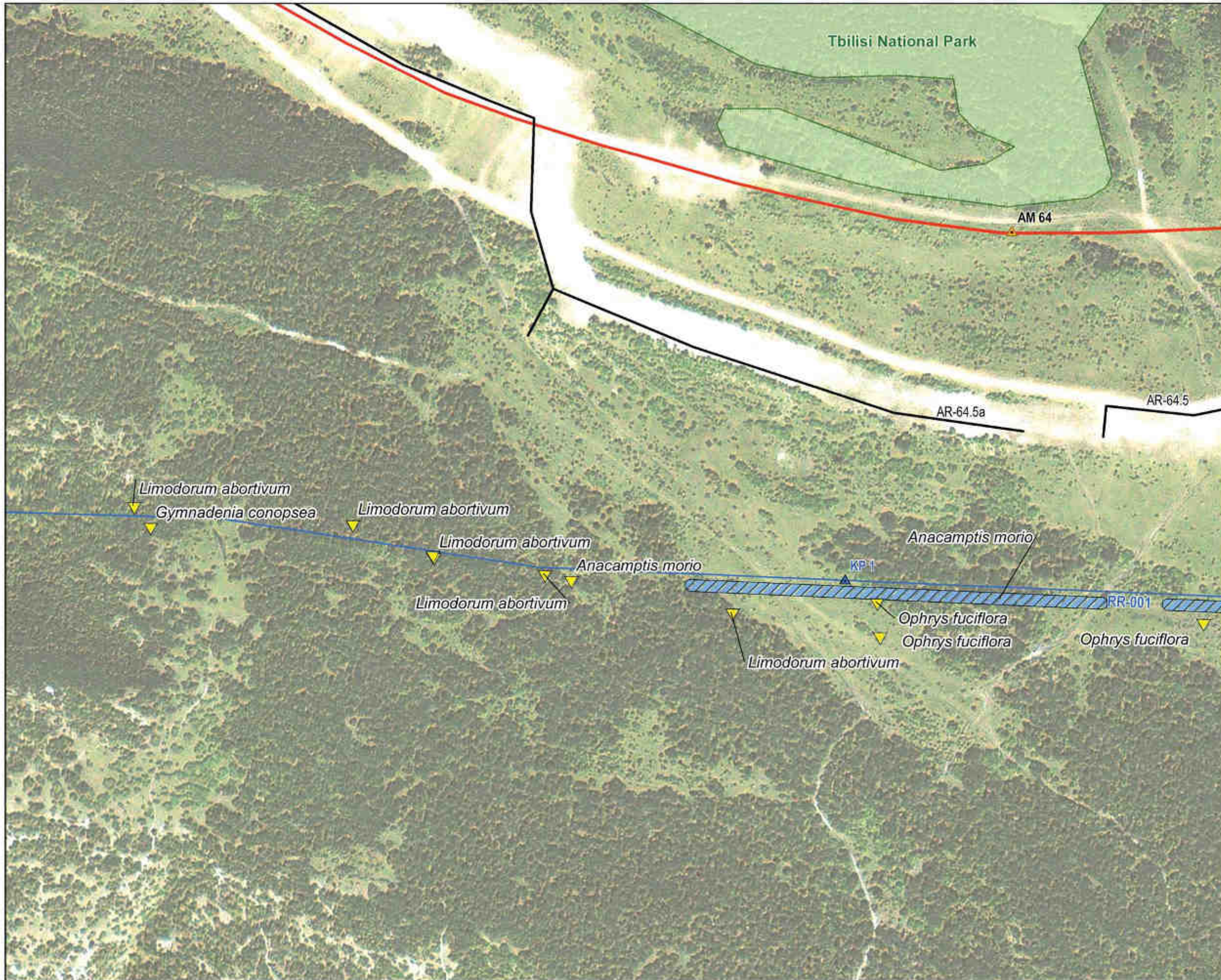
WREP SECTIONAL REPLACEMENT PROJECT

TITLE: Environmental and Social Constraints RR-001

0 10 20 40 Meters
 SCALE ON A3: 1:2500



DRAWING No. Map 2d



COORDINATE SYSTEM PARAMETERS
 PROJECTION: GAUSS KRUGER ZONE 8
 ELLIPSOID: KRASOVSKY
 GEODETIC DATUM: PULKOVO 1942
 VERTICAL COORDINATE SYSTEM: KRONSTADT (BALTIC SEA) DATUM

Satellite imagery: BP 2013
 Aerial Imagery: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

- LEGEND**
- Existing WREP Route
 - ▲ Aerial Marker
 - WREP SRP Section
 - ▲ RR/RP Kilometre Point
 - WREP-SR Access Roads
 - Protected Area
 - ▼ CITES
 - Extensive Populations of CITES Species



WREP SECTIONAL REPLACEMENT PROJECT

TITLE: Environmental and Social Constraints RR-001



DRAWING No. Map 2e



COORDINATE SYSTEM PARAMETERS
 PROJECTION: GAUSS KRUGER ZONE 8
 ELLIPSOID: KRASOVSKY
 GEODETIC DATUM: PULKOVO 1942
 VERTICAL COORDINATE SYSTEM: KRONSTADT (BALTIC SEA) DATUM

Satellite imagery: BP 2013
 Aerial imagery: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

LEGEND

- Aerial Marker
- WREP SRP Section
- RR/RP Kilometre Point
- WREP-SR Access Roads
- Landslides
- Watercourse crossings
- CITES



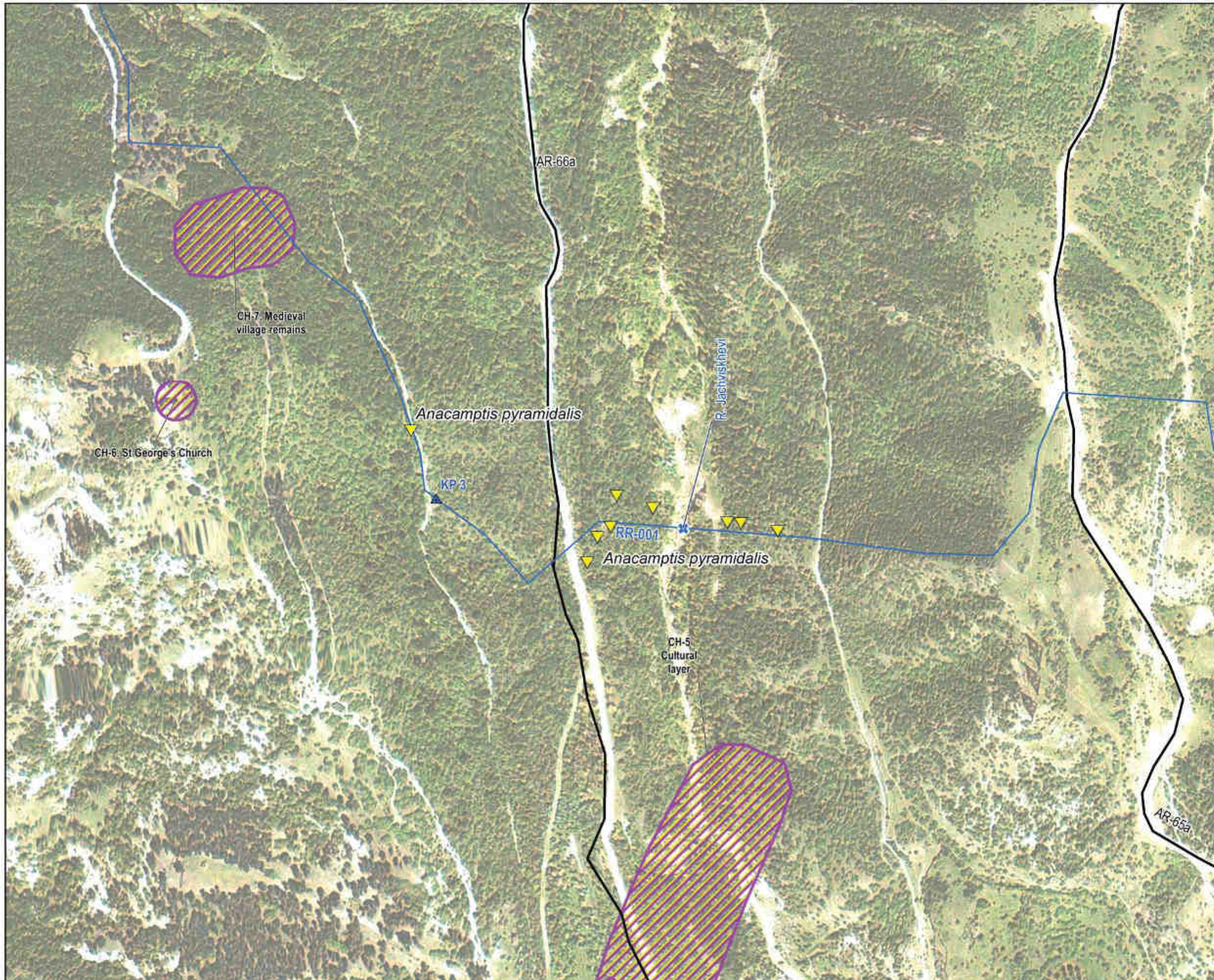
WREP SECTIONAL REPLACEMENT PROJECT

TITLE: Environmental and Social Constraints RR-001

0 10 20 40 Meters
 SCALE ON A3: 1:2500



DRAWING No. Map 2f



COORDINATE SYSTEM PARAMETERS
 PROJECTION: GAUSS KRUGER ZONE 8
 ELLIPSOID: KRASOVSKY
 GEODETIC DATUM: PULKOVO 1942
 VERTICAL COORDINATE SYSTEM: KRONSTADT (BALTIC SEA) DATUM

Satellite imagery: BP 2013
 Aerial imagery: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

LEGEND

- Aerial Marker
- WREP SRP Section
- RR/RP Kilometre Point
- WREP-SR Access Roads
- Cultural Heritage Feature
- Watercourse crossings
- CITES

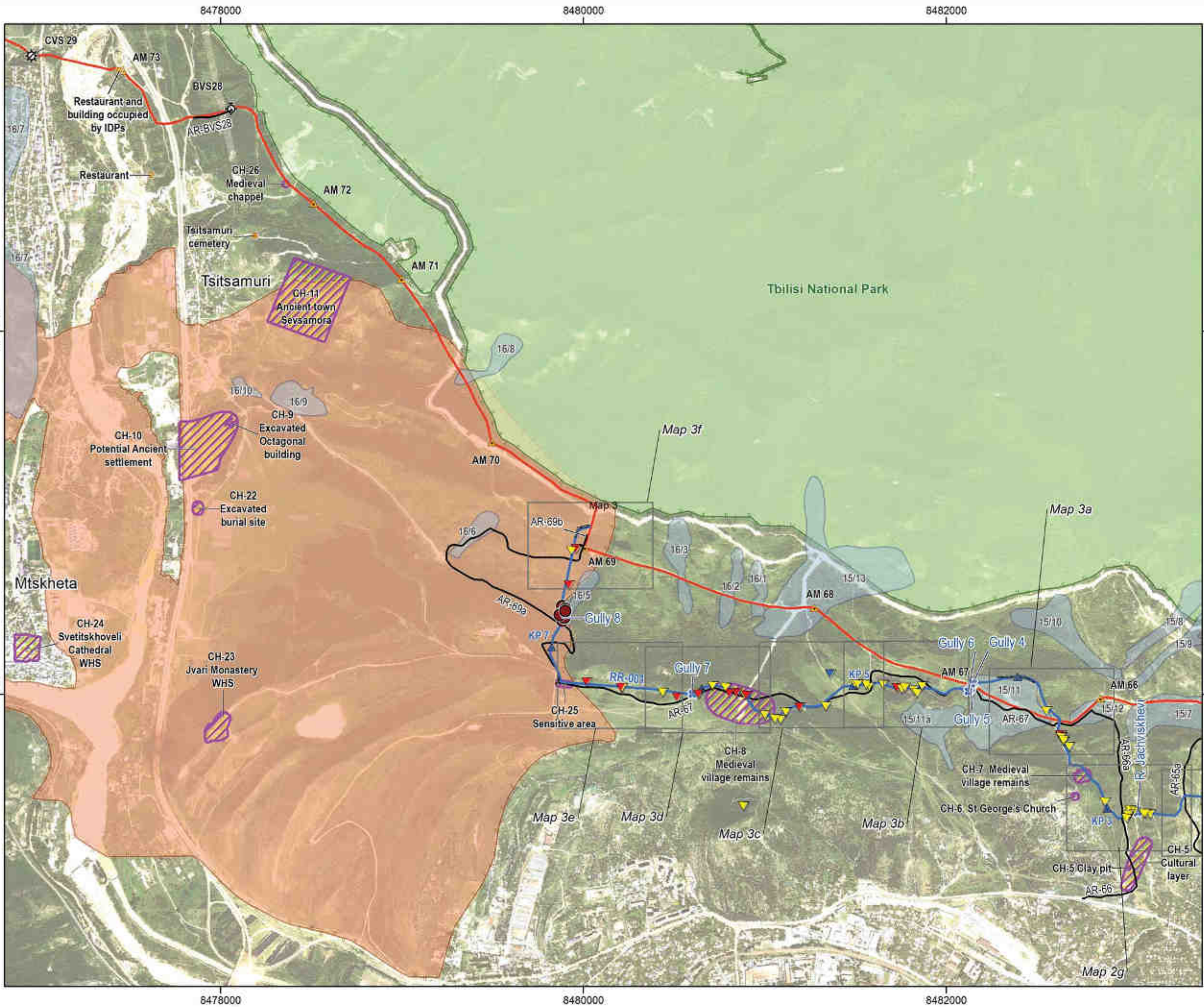


WREP SECTIONAL REPLACEMENT PROJECT

TITLE: Environmental and Social Constraints RR-001



DRAWING No. Map 2g



COORDINATE SYSTEM PARAMETERS
 PROJECTION: GAUSS KRUGER
 ZONE 8
 ELLIPSOID: KRASOVSKY
 GEODETIC DATUM: PULKOVO 1942
 VERTICAL COORDINATE SYSTEM: KRONSTADT (BALTIC SEA) DATUM

Satellite imagery: BP 2013
 Aerial Imagery: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

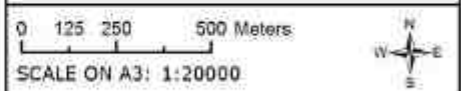
LEGEND

- Existing WREP Route
- Aerial Marker
- ⊗ Block Valve
- ⊗ Check Valve
- WREP SRP Section
- ▲ RR/RP Kilometre Point
- WREP-SR Access Roads
- Cultural Heritage Feature
- Landslides
- Protected Area
- Mtskheta WHS landscape protection zone
- ✕ Watercourse crossings
- HCV Species**
- ▼ CITES
- ▼ GRL
- ▼ GRL&CITES
- Extensive Populations of CITES Species
- Mature Trees – Potential Bat Shelters



WREP SECTIONAL REPLACEMENT PROJECT

TITLE: Environmental and Social Constraints RR-001



DRAWING No. Map 3



COORDINATE SYSTEM PARAMETERS
 PROJECTION: GAUSS KRUGER ZONE 8
 ELLIPSOID: KRASOVSKY
 GEODETIC DATUM: PULKOVO 1942
 VERTICAL COORDINATE SYSTEM: KRONSTADT (BALTIC SEA) DATUM

Satellite imagery: BP 2013
 Aerial Imagery: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

LEGEND	
	Existing WREP Route
	Aerial Marker
	WREP SRP Section
	RR/RP Kilometre Point
	WREP-SR Access Roads
	Landslides
	CITES
	GRL
	Extensive Populations of CITES Species

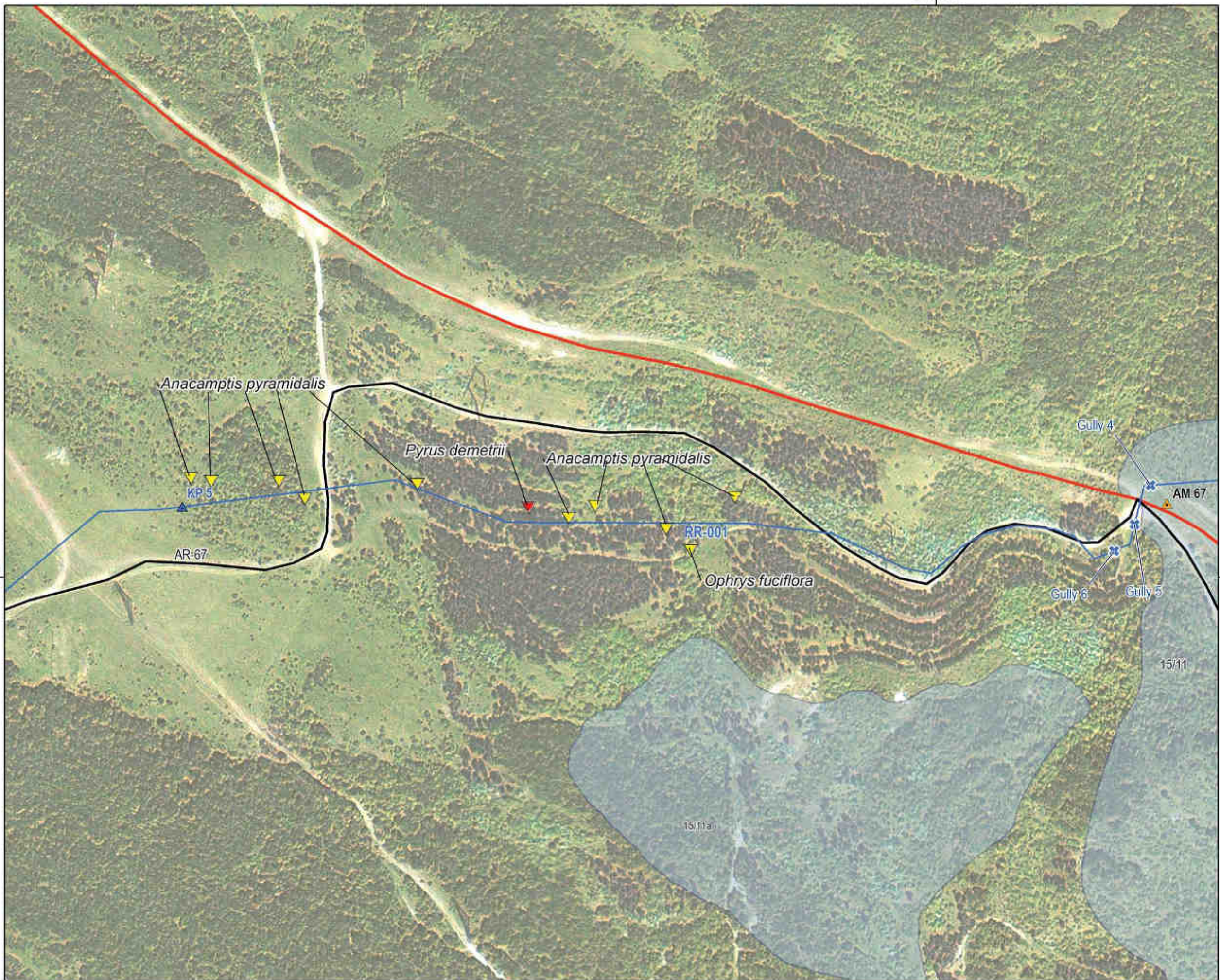


WREP SECTIONAL REPLACEMENT PROJECT

TITLE: Environmental and Social Constraints RR-001



DRAWING No. Map 3a



COORDINATE SYSTEM PARAMETERS
 PROJECTION: GAUSS KRUGER
 ZONE 8
 ELLIPSOID: KRASOVSKY
 GEODETIC DATUM: PULKOVO 1942
 VERTICAL COORDINATE SYSTEM: KRONSTADT (BALTIC SEA) DATUM

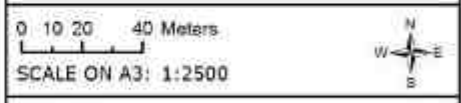
Satellite imagery: BP 2013
 Aerial Imagery: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

- LEGEND**
- Existing WREP Route
 - ▲ Aerial Marker
 - WREP SRP Section
 - ▲ RR/RP Kilometre Point
 - WREP-SR Access Roads
 - Cultural Heritage Feature
 - Landslides
 - ✕ Watercourse crossings
 - ▼ CITES
 - ▼ GRL

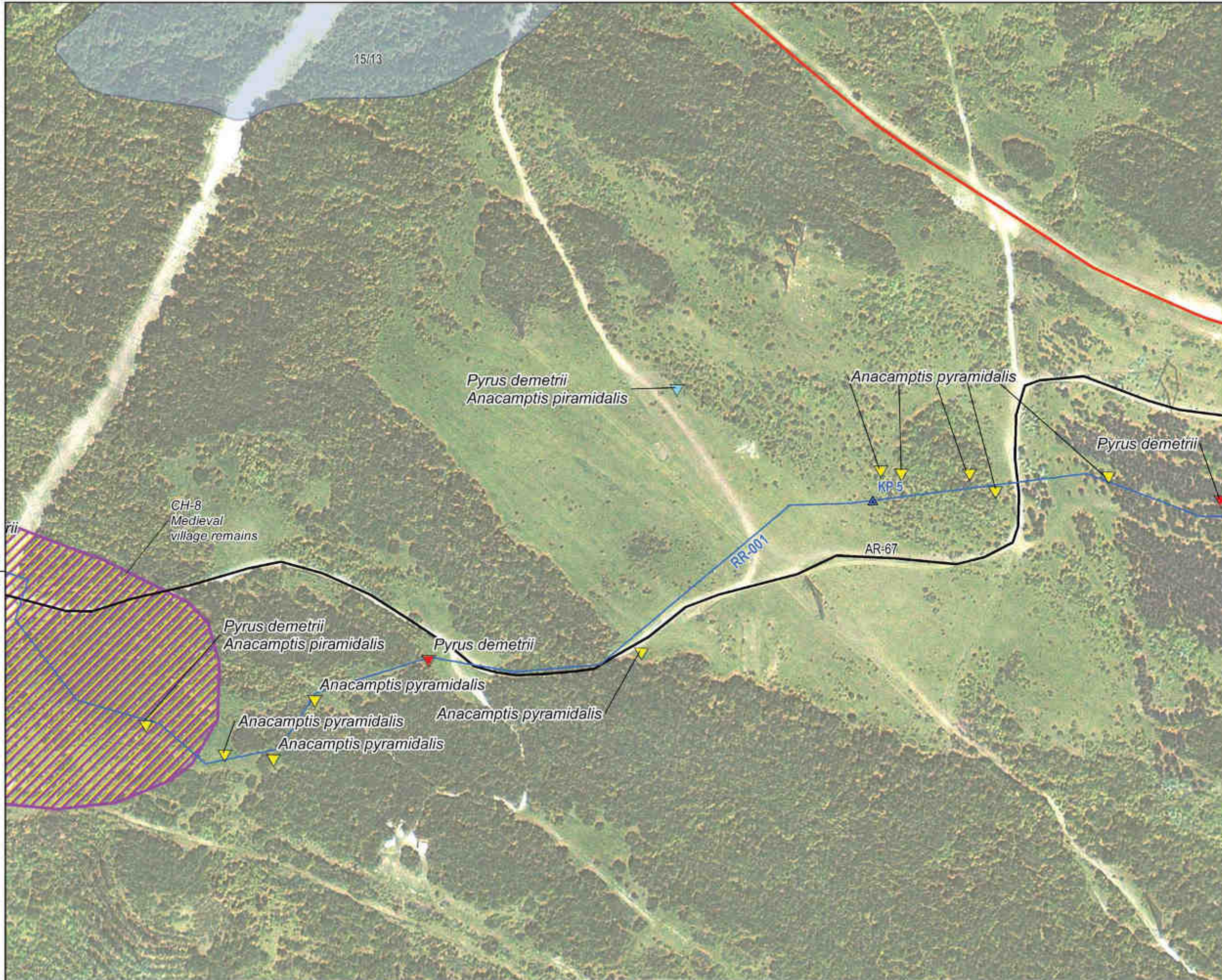


WREP SECTIONAL REPLACEMENT PROJECT

TITLE: Environmental and Social Constraints RR-001



DRAWING No. Map 3b



COORDINATE SYSTEM PARAMETERS
 PROJECTION: GAUSS KRUGER ZONE 8
 ELLIPSOID: KRASOVSKY
 GEODETIC DATUM: PULKOVO 1942
 VERTICAL COORDINATE SYSTEM: KRONSTADT (BALTIC SEA) DATUM

Satellite imagery: BP 2013
 Aerial Imagery: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

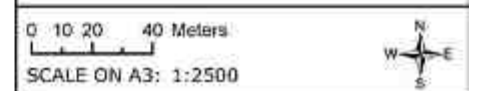
LEGEND

- Existing WREP Route
- ▲ Aerial Marker
- WREP SRP Section
- ▲ RR/RP Kilometre Point
- WREP-SR Access Roads
- Cultural Heritage Feature
- Landslides
- ▼ CITES
- ▼ GRL
- ▼ GRL&CITES



WREP SECTIONAL REPLACEMENT PROJECT

TITLE: Environmental and Social Constraints RR-001



DRAWING No. Map 3c



COORDINATE SYSTEM PARAMETERS
 PROJECTION: GAUSS KRUGER ZONE 8
 ELLIPSOID: KRASOVSKY
 GEODETIC DATUM: PULKOVO 1942
 VERTICAL COORDINATE SYSTEM: KRONSTADT (BALTIC SEA) DATUM

Satellite imagery: BP 2013
 Aerial imagery: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

LEGEND	
	Aerial Marker
	WREP SRP Section
	RR/RP Kilometre Point
	WREP-SR Access Roads
	Cultural Heritage Feature
	Landslides
	Watercourse crossings
	CITES
	GRL



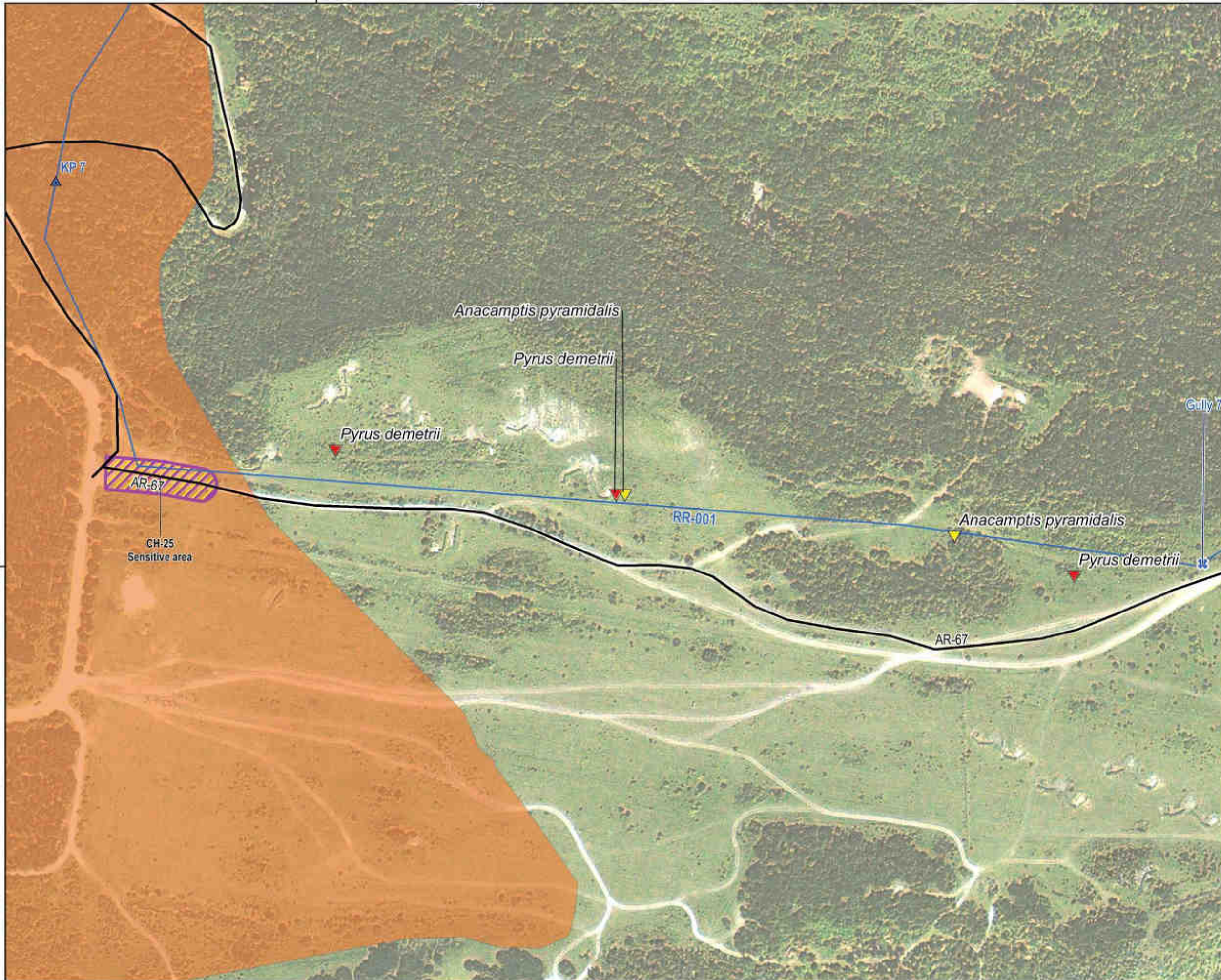
WREP SECTIONAL REPLACEMENT PROJECT

TITLE: Environmental and Social Constraints RR-001



DRAWING No. Map 3d

8480000



4634000

4634000

8480000

COORDINATE SYSTEM PARAMETERS
 PROJECTION: GAUSS KRUGER ZONE 8
 ELLIPSOID: KRASOVSKY
 GEODETIC DATUM: PULKOVO 1942
 VERTICAL COORDINATE SYSTEM: KRONSTADT (BALTIC SEA) DATUM

Satellite imagery: BP 2013
 Aerial imagery: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

LEGEND

- Aerial Marker
- WREP SRP Section
- RR/RP Kilometre Point
- WREP-SR Access Roads
- Cultural Heritage Feature
- Mtskehta WHS landscape protection zone
- Watercourse crossings
- CITES
- GRL

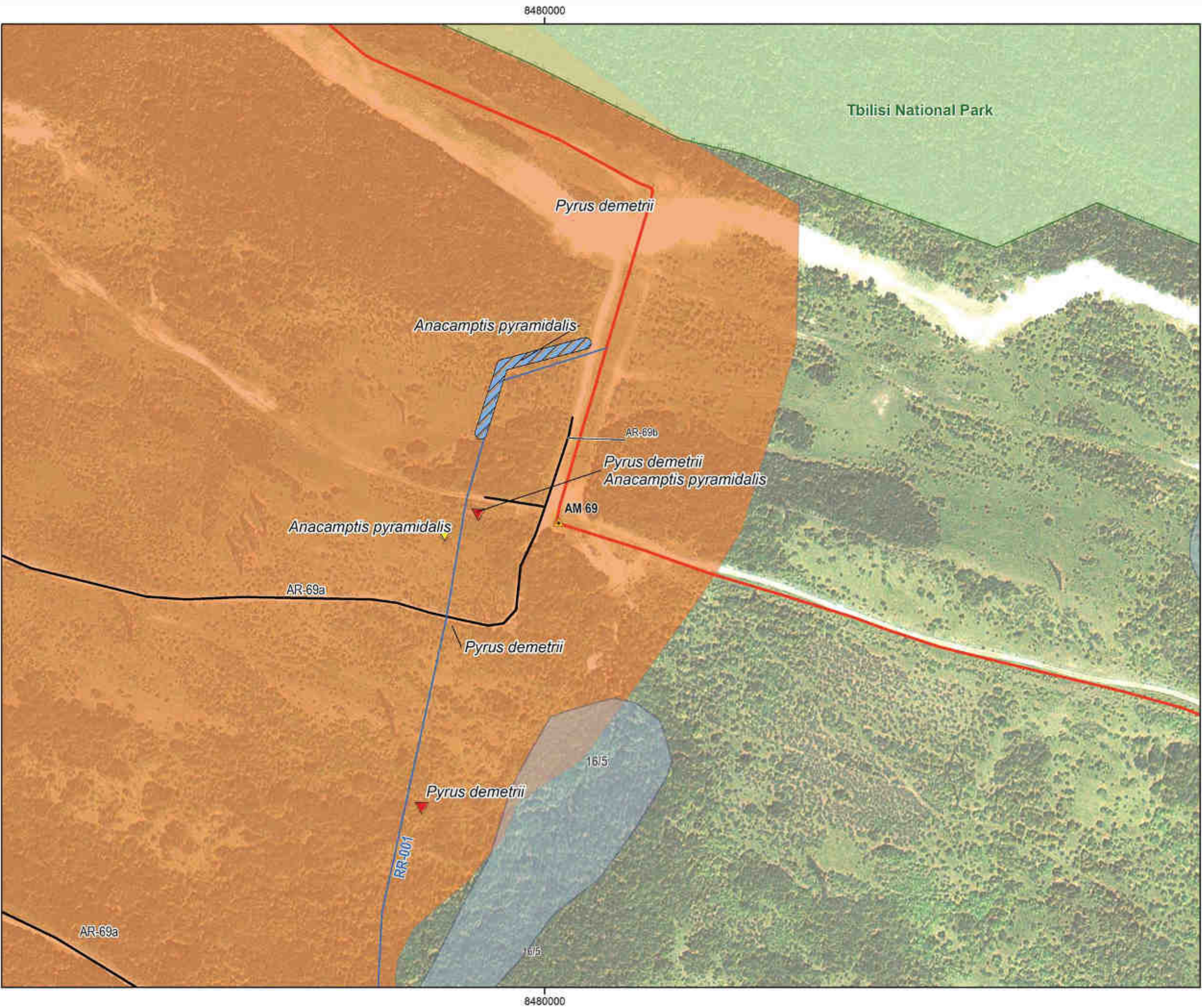


WREP SECTIONAL REPLACEMENT PROJECT

TITLE: Environmental and Social Constraints RR-001



DRAWING No. Map 3e



COORDINATE SYSTEM PARAMETERS
 PROJECTION: GAUSS KRUGER
 ZONE 8
 ELLIPSOID: KRASOVSKY
 GEODETIC DATUM: PULKOVO 1942
 VERTICAL: KRONSTADT (BALTIC
 COORDINATE: SEA) DATUM
 SYSTEM:

Satellite imagery: BP 2013
 Aerial Imagery: Esri, DigitalGlobe, GeoEye,
 Earthstar Geographics, CNES/Airbus DS,
 USDA, USGS, AEX, Getmapping, Aerogrid, IGN,
 IGP, swisstopo, and the GIS User Community

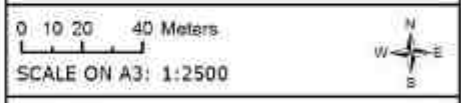
LEGEND

- Existing WREP Route
- Aerial Marker
- WREP SRP Section
- WREP-SR Access Roads
- Cultural Heritage Feature
- Landslides
- Protected Area
- Mtskehta WHS landscape protection zone
- CITES
- GRL
- Extensive Populations of CITES Species



WREP SECTIONAL REPLACEMENT PROJECT

TITLE: Environmental and Social Constraints RR-001



DRAWING No. Map 3f

8370000

8372000

8374000

4680000

4678000

4676000

8370000

8372000

8374000

Project Affected Communities

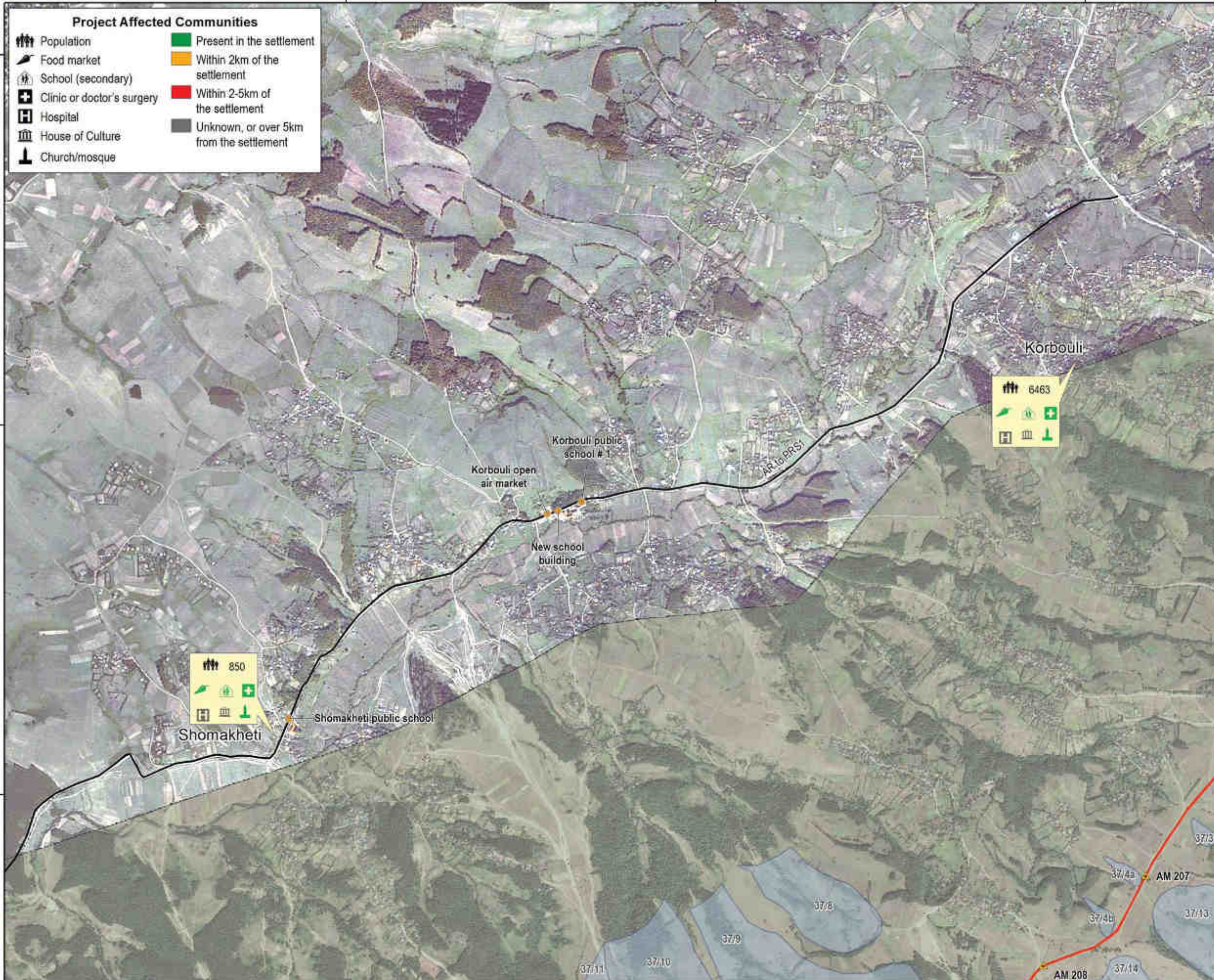
- | | |
|----------------------------|--|
| Population | Present in the settlement |
| Food market | Within 2km of the settlement |
| School (secondary) | Within 2-5km of the settlement |
| Clinic or doctor's surgery | Unknown, or over 5km from the settlement |
| Hospital | |
| House of Culture | |
| Church/mosque | |

COORDINATE SYSTEM PARAMETERS
 PROJECTION: GAUSS KRUGER ZONE 8
 ELLIPSOID: KRASOVSKY
 GEODETIC DATUM: PULKOVO 1942
 VERTICAL COORDINATE SYSTEM: KRONSTADT (BALTIC SEA) DATUM

Satellite imagery: BP 2012
 Aerial Imagery: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

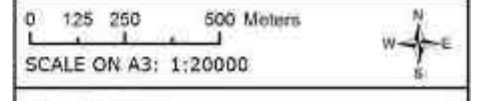
LEGEND

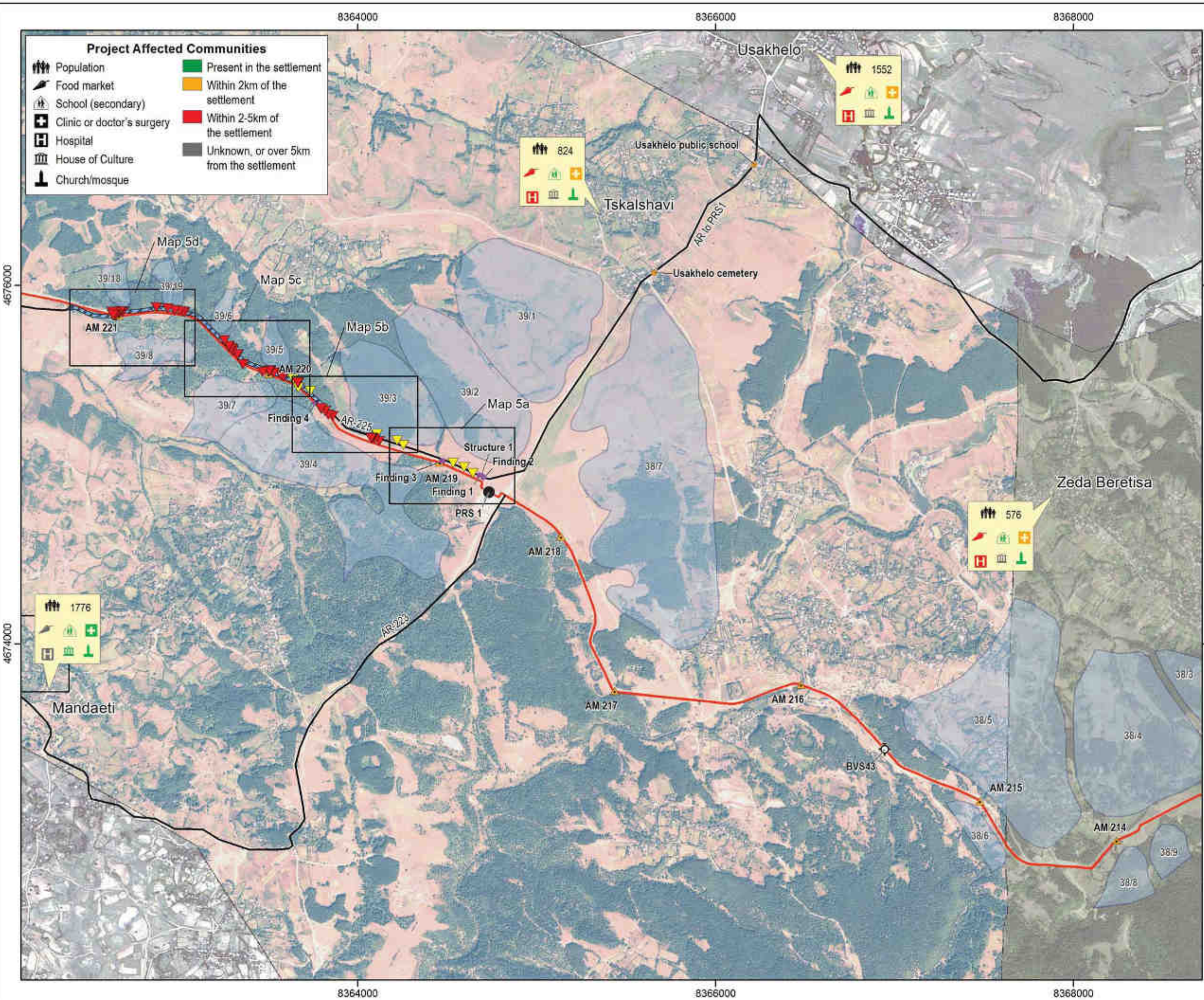
- Existing WREP Route
- Aerial Marker
- WREP-SR Access Roads
- Landslides



WREP SECTIONAL REPLACEMENT PROJECT

TITLE: Environmental and Social Constraints AR to PRS1
 SCALE ON A3: 1:20000
 DRAWING No. Map 4





Project Affected Communities

Population	Present in the settlement
Food market	Within 2km of the settlement
School (secondary)	Within 2-5km of the settlement
Clinic or doctor's surgery	Unknown, or over 5km from the settlement
Hospital	
House of Culture	
Church/mosque	

COORDINATE SYSTEM PARAMETERS
 PROJECTION: GAUSS KRUGER ZONE 8
 ELLIPSOID: KRASOVSKY
 GEODETIC DATUM: PULKOVO 1942
 VERTICAL COORDINATE SYSTEM: KRONSTADT (BALTIC SEA) DATUM

Satellite imagery: BP 2012
 Aerial Imagery: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

LEGEND

- Existing WREP Route
- Aerial Marker
- Pressure Reduction Station
- Block Valve
- WREP-SR Access Roads
- Cultural Heritage Feature
- Landslides
- Extensive Populations of CITES Specie

- HCV Species**
- GRL
 - CITES

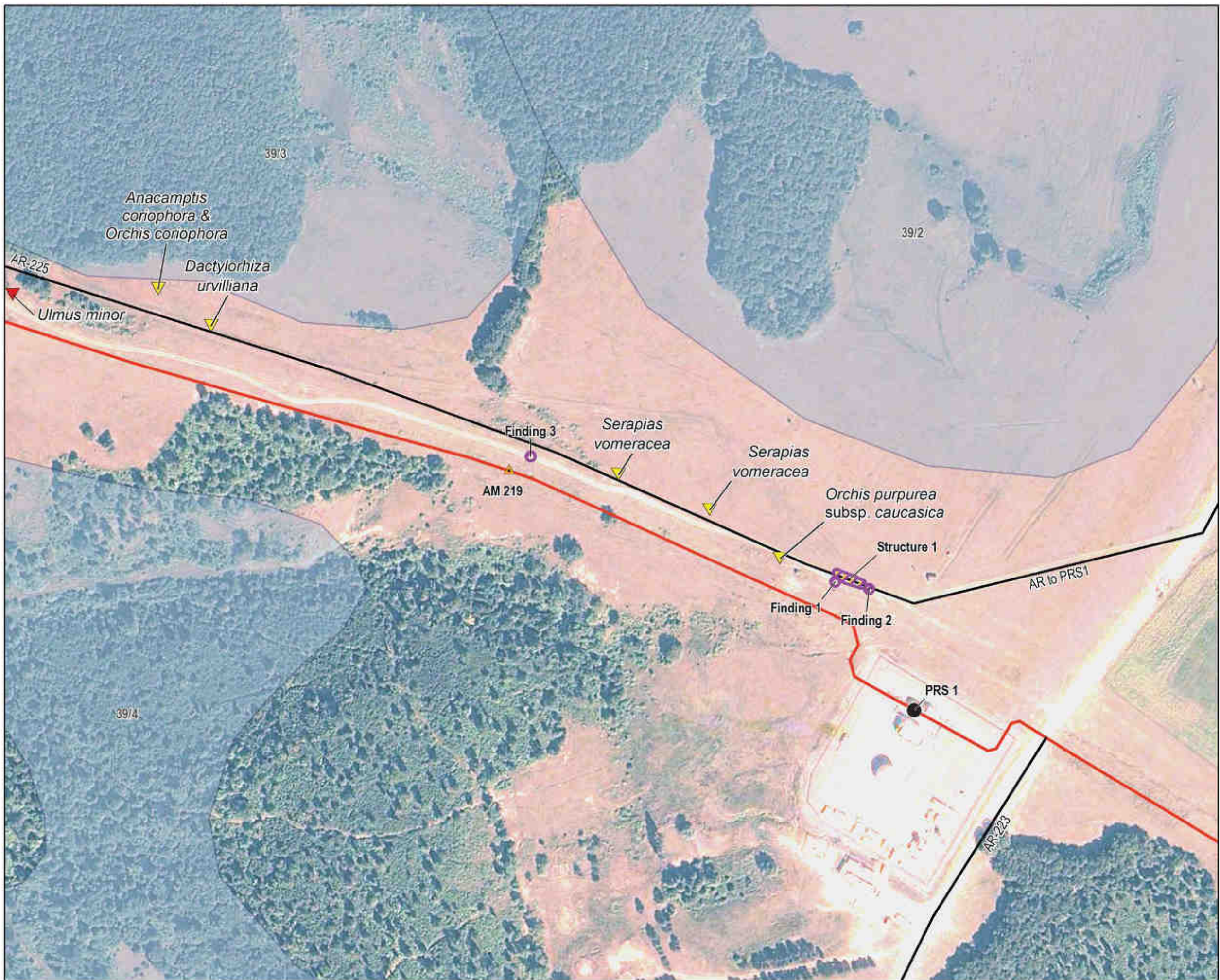


WREP SECTIONAL REPLACEMENT PROJECT

TITLE: Environmental and Social Constraints AR-225, AR-223

0 125 250 500 Meters
 SCALE ON A3: 1:20000

DRAWING No. Map 5



COORDINATE SYSTEM PARAMETERS
 PROJECTION: GAUSS KRUGER
 ZONE 8
 ELLIPSOID: KRASOVSKY
 GEODETIC DATUM: PULKOVO 1942
 VERTICAL: KRONSTADT (BALTIC
 COORDINATE: SEA) DATUM
 SYSTEM:

Satellite imagery: BP 2012
 Aerial Imagery: Esri, DigitalGlobe, GeoEye,
 Earthstar Geographics, CNES/Airbus DS,
 USDA, USGS, AEX, Getmapping, Aerogrid, IGN,
 IGP, swisstopo, and the GIS User Community

- LEGEND**
- Existing WREP Route
 - ▲ Aerial Marker
 - Pressure Reduction Station
 - WREP-SR Access Roads
 - Cultural Heritage Feature
 - Landslides
 - ▼ GRL
 - ▼ CITES

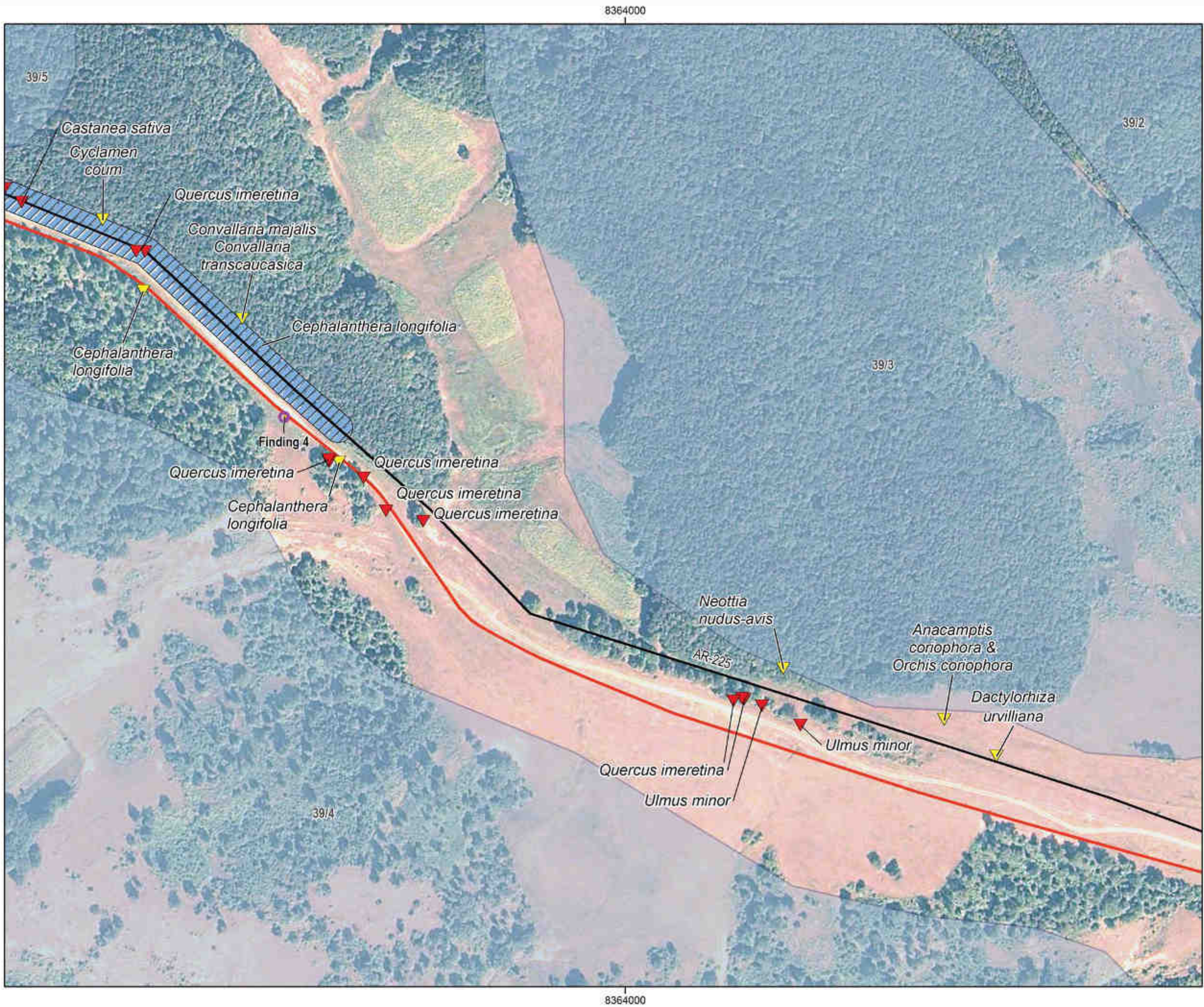


**WREP SECTIONAL
 REPLACEMENT PROJECT**

TITLE: Environmental and Social
 Constraints AR-225



DRAWING No. Map 5a



COORDINATE SYSTEM PARAMETERS
 PROJECTION: GAUSS KRUGER ZONE 8
 ELLIPSOID: KRASOVSKY
 GEODETIC DATUM: PULKOVO 1942
 VERTICAL COORDINATE SYSTEM: KRONSTADT (BALTIC SEA) DATUM

Satellite imagery: BP 2012
 Aerial Imagery: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

- LEGEND**
- Existing WREP Route
 - WREP-SR Access Roads
 - Cultural Heritage Feature
 - Landslides
 - Extensive Populations of CITES Specie
 - ▼ GRL
 - ▼ CITES

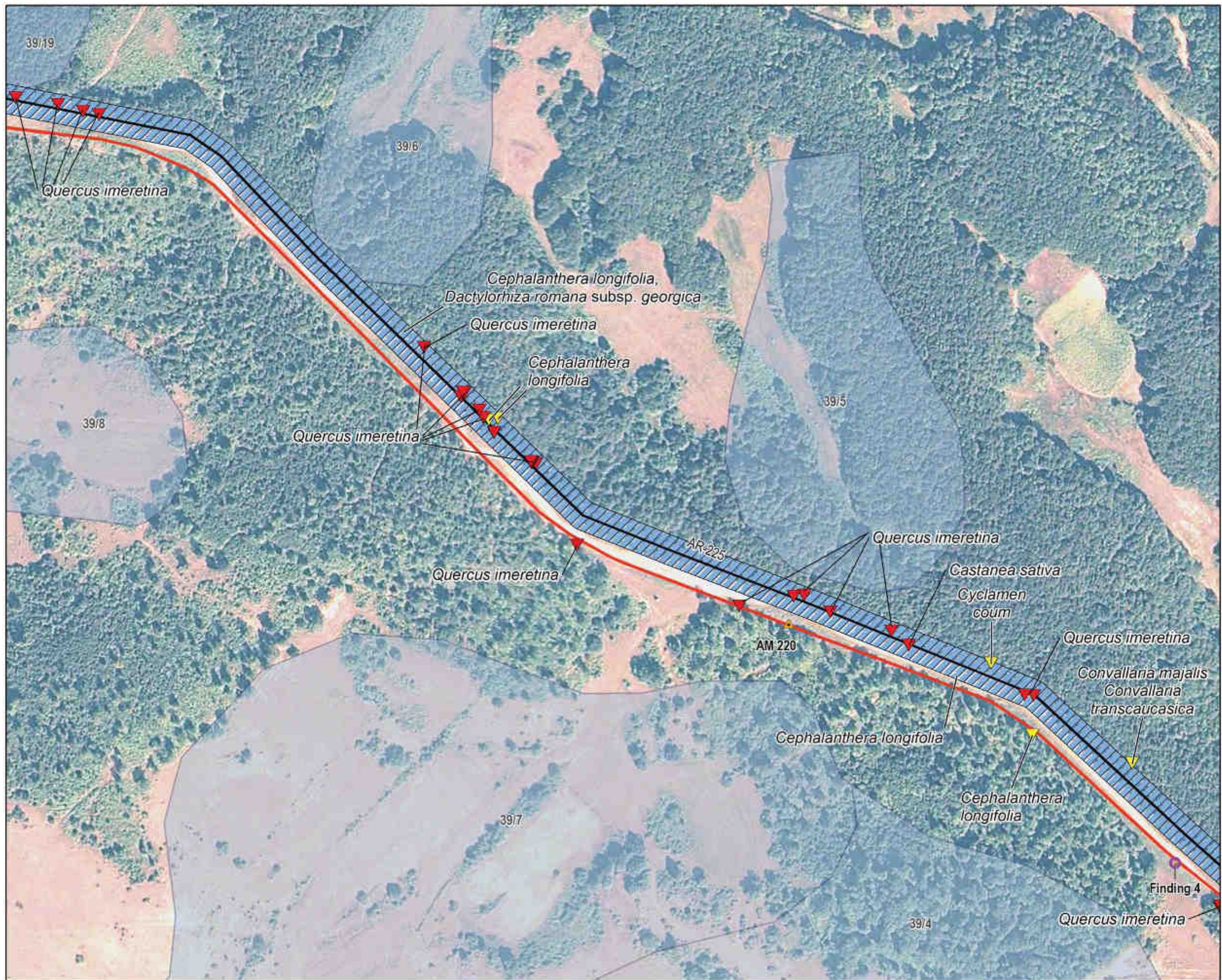


WREP SECTIONAL REPLACEMENT PROJECT

TITLE: Environmental and Social Constraints AR-225



DRAWING No. Map 5b



COORDINATE SYSTEM PARAMETERS
 PROJECTION: GAUSS KRUGER
 ZONE 8
 ELLIPSOID: KRASOVSKY
 GEODETIC DATUM: PULKOVO 1942
 VERTICAL: KRONSTADT (BALTIC
 COORDINATE: SEA) DATUM
 SYSTEM:

Satellite imagery: BP 2012
 Aerial Imagery: Esri, DigitalGlobe, GeoEye,
 Earthstar Geographics, CNES/Airbus DS,
 USDA, USGS, AEX, Getmapping, Aerogrid, IGN,
 IGP, swisstopo, and the GIS User Community

- LEGEND**
- Existing WREP Route
 - ▲ Aerial Marker
 - WREP-SR Access Roads
 - Cultural Heritage Feature
 - Landslides
 - Extensive Populations of CITES Specie
 - ▼ GRL
 - ▼ CITES



WREP SECTIONAL REPLACEMENT PROJECT

TITLE: Environmental and Social Constraints AR-225



DRAWING No. Map 5c

4676000



4676000

COORDINATE SYSTEM PARAMETERS
 PROJECTION: GAUSS KRUGER
 ZONE 8
 ELLIPSOID: KRASOVSKY
 GEODETIC DATUM: PULKOVO 1942
 VERTICAL: KRONSTADT (BAL TIC
 COORDINATE: SEA) DATUM
 SYSTEM:

Satellite imagery: BP 2012
 Aerial Imagery: Esri, DigitalGlobe, GeoEye,
 Earthstar Geographics, CNES/Airbus DS,
 USDA, USGS, AEX, Getmapping, Aerogrid, IGN,
 IGP, swisstopo, and the GIS User Community

LEGEND

- Existing WREP Route
- ▲ Aerial Marker
- WREP-SR Access Roads
- Landslides
- Extensive Populations of CITES Species
- ▼ GRL

Cephalanthera longifolia,
Dactylorhiza romana subsp. georgica

Quercus imeretina

AR-225

AM 221

Quercus imeretina

Quercus imeretina

39/8

39/18

39/19

39/7

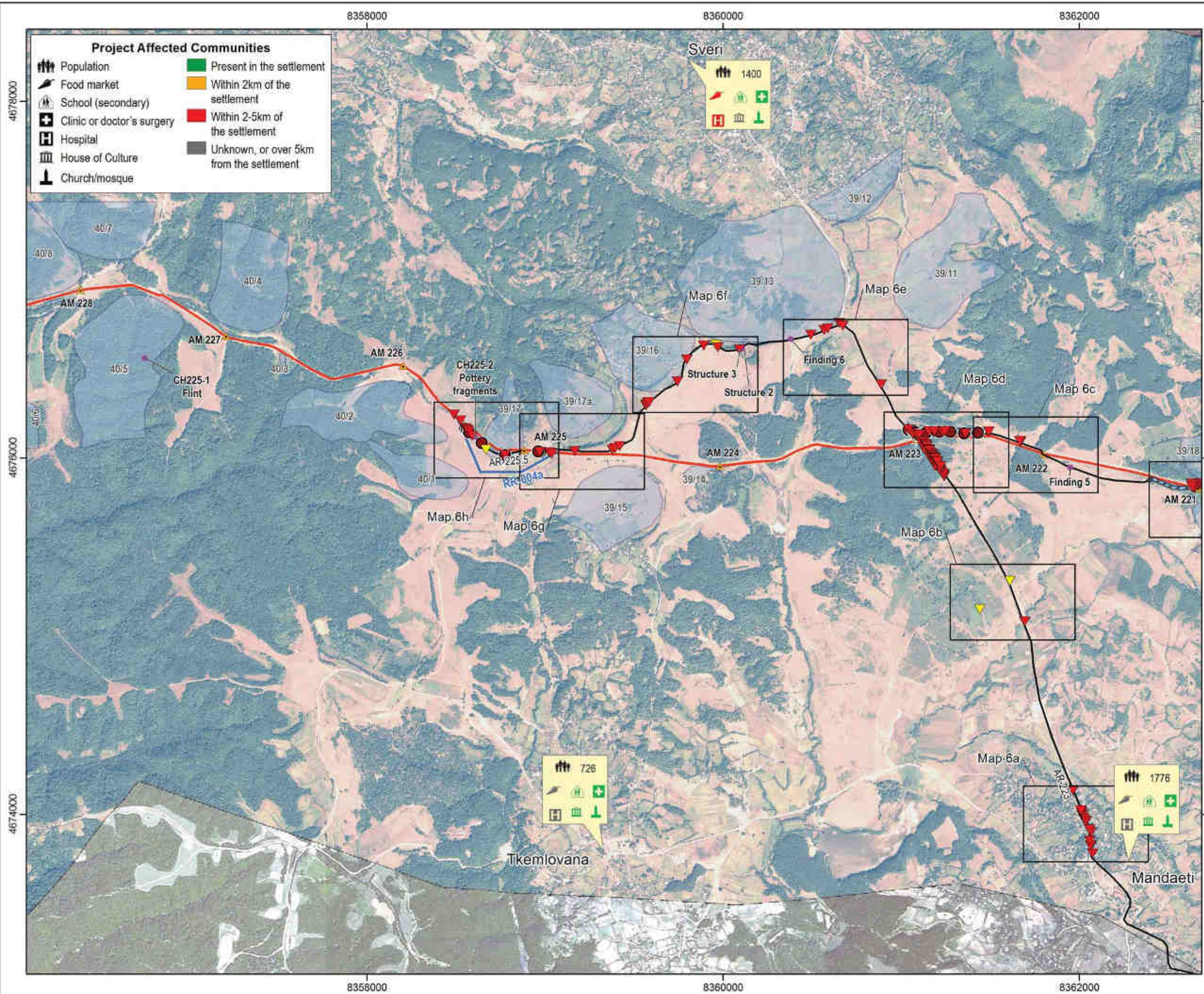


**WREP SECTIONAL
 REPLACEMENT PROJECT**

TITLE: Environmental and Social
 Constraints AR-225



DRAWING No. Map 5d



Project Affected Communities

Population	Present in the settlement
Food market	Within 2km of the settlement
School (secondary)	Within 2-5km of the settlement
Clinic or doctor's surgery	Unknown, or over 5km from the settlement
Hospital	
House of Culture	
Church/mosque	

COORDINATE SYSTEM PARAMETERS
 PROJECTION: GAUSS KRUGER ZONE 8
 ELLIPSOID: KRASOVSKY
 GEODETIC DATUM: PULKOVO 1942
 VERTICAL COORDINATE SYSTEM: KRONSTADT (BALTIC SEA) DATUM

Satellite imagery: BP 2012

Aerial Imagery: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

LEGEND

- Existing WREP Route
- Aerial Marker
- WREP SRP Section
- WREP-SR Access Roads
- Cultural Heritage Feature
- Landslides
- Mature Trees - Potential Bat Shelters
- Extensive Populations of CITES Specie

HCV Species

- GRL
- CITES

Project Affected Communities

1400

Project Affected Communities

726

Project Affected Communities

1776



WREP SECTIONAL REPLACEMENT PROJECT

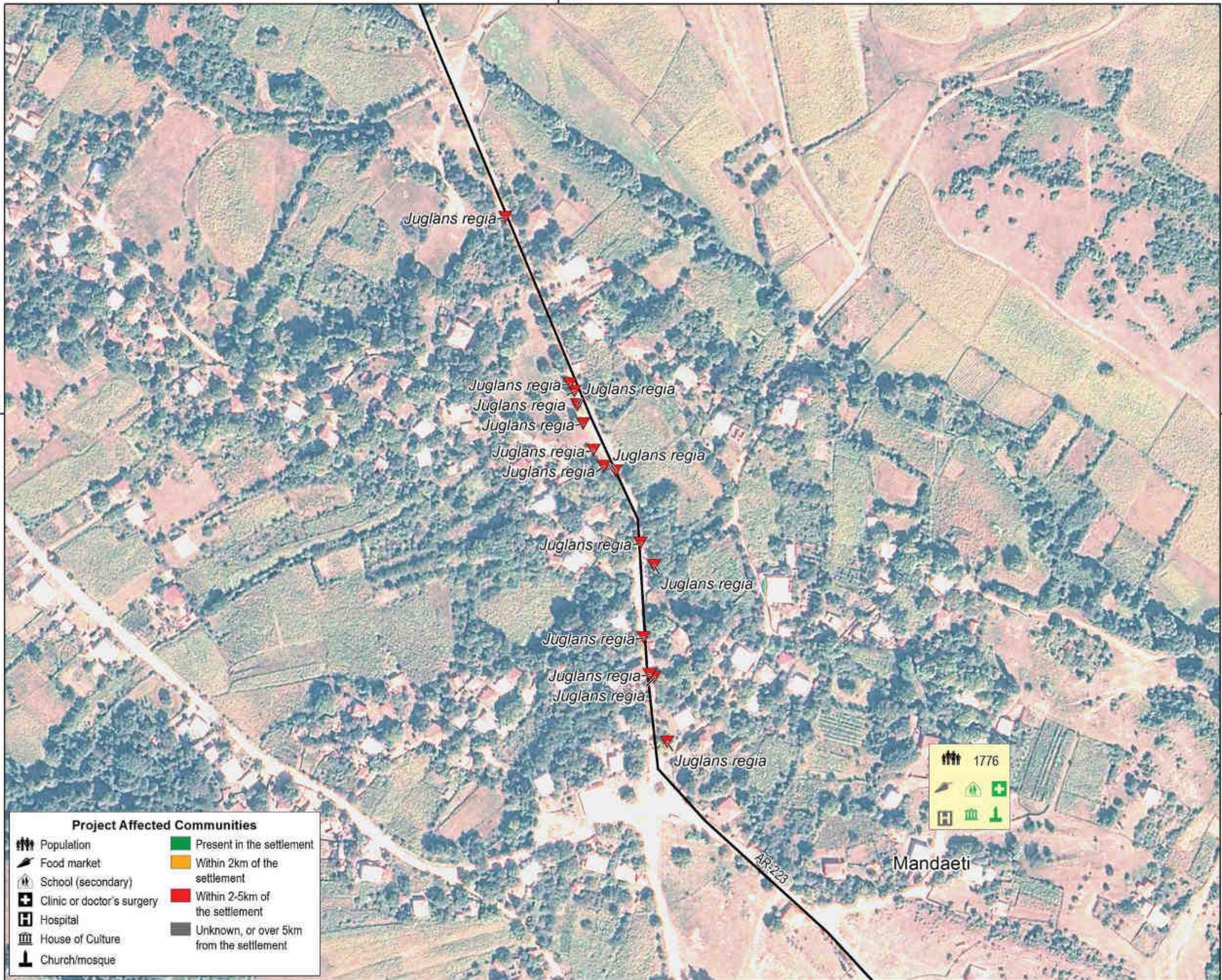
TITLE: Environmental and Social Constraints AR-225, AR-223

0 125 250 500 Meters

SCALE ON A3: 1:20000

DRAWING No. Map 6

8362000



4674000

4674000

8362000

COORDINATE SYSTEM PARAMETERS
 PROJECTION: GAUSS KRUGER
 ZONE 8
 ELLIPSOID: KRASOVSKY
 GEODETIC DATUM: PULKOVO 1942
 VERTICAL: KRONSTADT (BALTIC
 COORDINATE: SEA) DATUM
 SYSTEM:

Satellite imagery: BP 2012

LEGEND

- WREP-SR Access Roads
- ▼ GRL



WREP SECTIONAL REPLACEMENT PROJECT

TITLE: Environmental and Social
 Constraints AR-223, AR-225

0 10 20 40 Meters

SCALE ON A3: 1:2500



DRAWING No. Map 6a

- Project Affected Communities**
- | | |
|----------------------------|--|
| Population | Present in the settlement |
| Food market | Within 2km of the settlement |
| School (secondary) | Within 2-5km of the settlement |
| Clinic or doctor's surgery | Unknown, or over 5km from the settlement |
| Hospital | |
| House of Culture | |
| Church/mosque | |

1776

Mandaeti

AR-223



8362000

8362000

COORDINATE SYSTEM PARAMETERS
 PROJECTION: GAUSS KRUGER
 ZONE 8
 ELLIPSOID: KRASOVSKY
 GEODETIC DATUM: PULKOVO 1942
 VERTICAL COORDINATE SYSTEM: KRONSTADT (BALTIC SEA) DATUM

Satellite imagery: BP 2012

LEGEND

- WREP-SR Access Roads
- ▼ CITES
- ▼ GRL

Serapias vomeracea

Juglans regia

AR-223



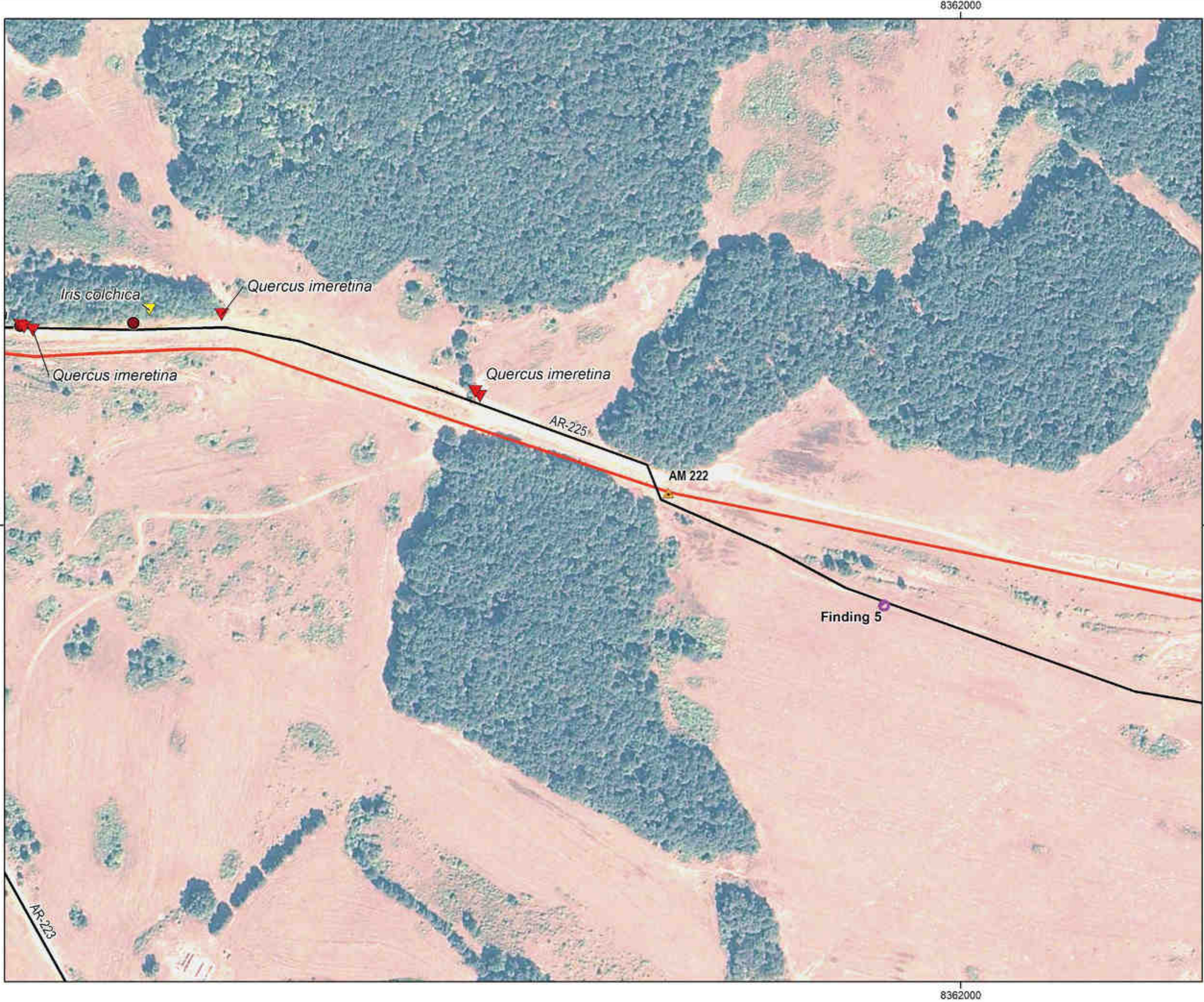
WREP SECTIONAL REPLACEMENT PROJECT

TITLE: Environmental and Social Constraints AR-223, AR-225

0 10 20 40 Meters
 SCALE ON A3: 1:2500



DRAWING No. Map 6b



COORDINATE SYSTEM PARAMETERS
 PROJECTION: GAUSS KRUGER
 ZONE 8
 ELLIPSOID: KRASOVSKY
 GEODETIC DATUM: PULKOVO 1942
 VERTICAL: KRONSTADT (BALTIC
 COORDINATE SYSTEM: SEA) DATUM

Satellite imagery: BP 2012

LEGEND

- Existing WREP Route
- ▲ Aerial Marker
- WREP-SR Access Roads
- Cultural Heritage Feature
- Mature Trees - Potential Bat Shelters
- ▼ GRL
- ▼ CITES



WREP SECTIONAL REPLACEMENT PROJECT

TITLE: Environmental and Social Constraints AR-223, AR-225



DRAWING No. Map 6c



COORDINATE SYSTEM PARAMETERS
 PROJECTION: GAUSS KRUGER
 ZONE 8
 ELLIPSOID: KRASOVSKY
 GEODETIC DATUM: PULKOVO 1942
 VERTICAL: KRONSTADT (BALTIC
 COORDINATE: SEA) DATUM
 SYSTEM:

Satellite imagery: BP 2012

LEGEND

- Existing WREP Route
- ▲ Aerial Marker
- WREP-SR Access Roads
- Mature Trees - Potential Bat Shelters
- ▼ GRL
- ▼ CITES



WREP SECTIONAL REPLACEMENT PROJECT

TITLE: Environmental and Social Constraints AR-223, AR-225

0 10 20 40 Meters
 SCALE ON A3: 1:2500

DRAWING No. Map 6d



COORDINATE SYSTEM PARAMETERS
 PROJECTION: GAUSS KRUGER
 ZONE 8
 ELLIPSOID: KRASOVSKY
 GEODETIC DATUM: PULKOVO 1942
 VERTICAL: KRONSTADT (BALTIC
 COORDINATE: SEA) DATUM
 SYSTEM:

Satellite imagery: BP 2012

- LEGEND**
- WREP-SR Access Roads
 - ▨ Cultural Heritage Feature
 - ▭ Landslides
 - ▼ GRL

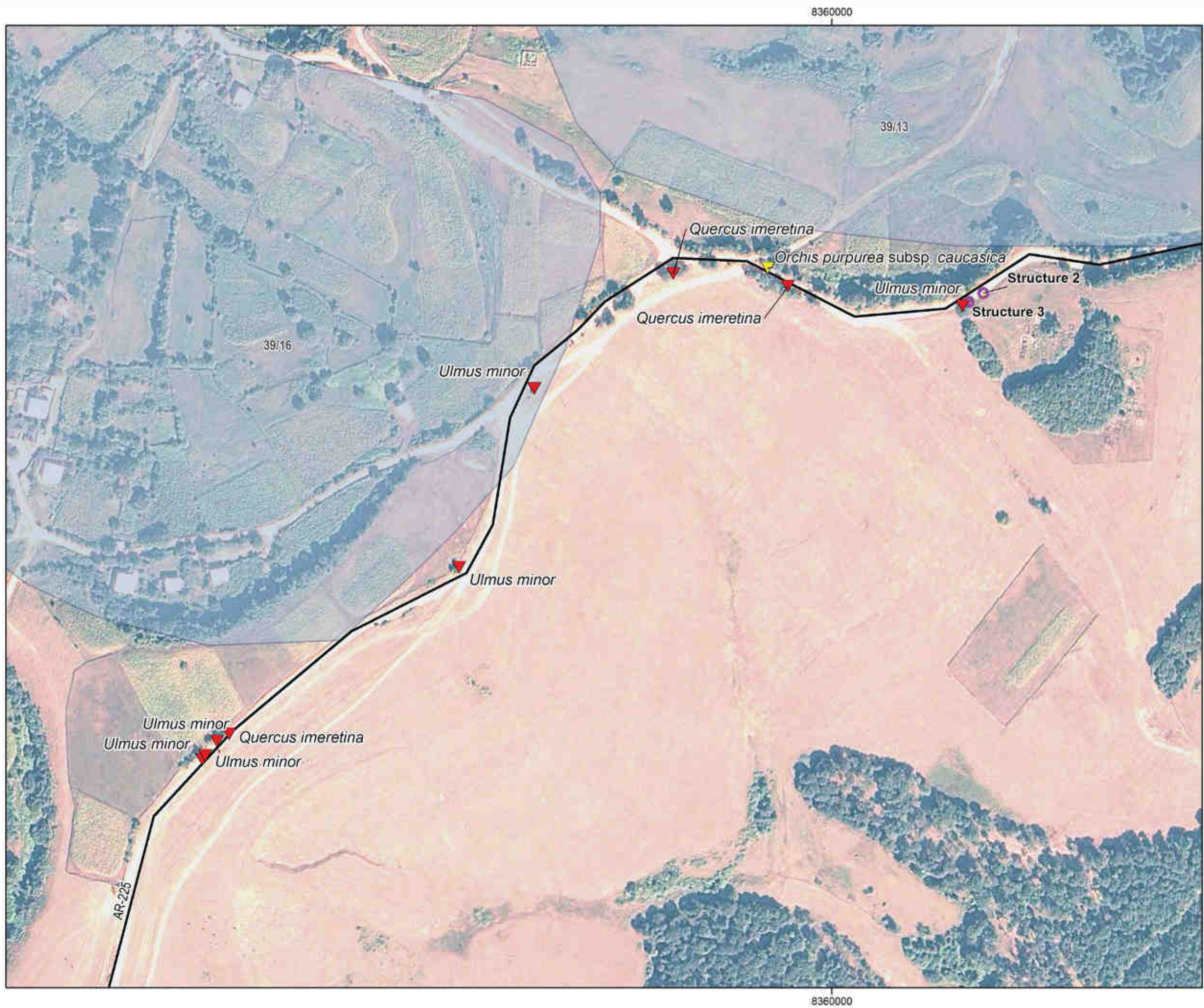


WREP SECTIONAL REPLACEMENT PROJECT

TITLE: Environmental and Social Constraints AR-223, AR-225



DRAWING No. Map 6e



COORDINATE SYSTEM PARAMETERS
 PROJECTION: GAUSS KRUGER
 ZONE 8
 ELLIPSOID: KRASOVSKY
 GEODETIC DATUM: PULKOVO 1942
 VERTICAL: KRONSTADT (BALTIC
 COORDINATE: SEA) DATUM
 SYSTEM:

Satellite imagery: BP 2012

LEGEND

- WREP-SR Access Roads
- Cultural Heritage Feature
- Landslides
- GRL
- CITES



WREP SECTIONAL REPLACEMENT PROJECT

TITLE: Environmental and Social Constraints AR-223, AR-225



DRAWING No. Map 6f



COORDINATE SYSTEM PARAMETERS
 PROJECTION: GAUSS KRUGER
 ZONE 8
 ELLIPSOID: KRASOVSKY
 GEODETIC DATUM: PULKOVO 1942
 VERTICAL: KRONSTADT (BALTIC
 COORDINATE: SEA) DATUM
 SYSTEM:

Satellite imagery: BP 2012

- LEGEND**
- Existing WREP Route
 - WREP SRP Section
 - WREP-SR Access Roads
 - Landslides
 - Mature Trees - Potential Bat Shelters
 - ▼ GRL



WREP SECTIONAL REPLACEMENT PROJECT

TITLE: Environmental and Social Constraints AR-223, AR-225



DRAWING No. Map 6g



COORDINATE SYSTEM PARAMETERS
 PROJECTION: GAUSS KRUGER
 ZONE 8
 ELLIPSOID: KRASOVSKY
 GEODETIC DATUM: PULKOVO 1942
 VERTICAL: KRONSTADT (BALTIC
 COORDINATE: SEA) DATUM
 SYSTEM:

Satellite imagery: BP 2012

- LEGEND**
- Existing WREP Route
 - WREP SRP Section
 - WREP-SR Access Roads
 - Cultural Heritage Feature
 - Landslides
 - Mature Trees - Potential Bat Shelters
 - ▼ GRL
 - ▼ CITES

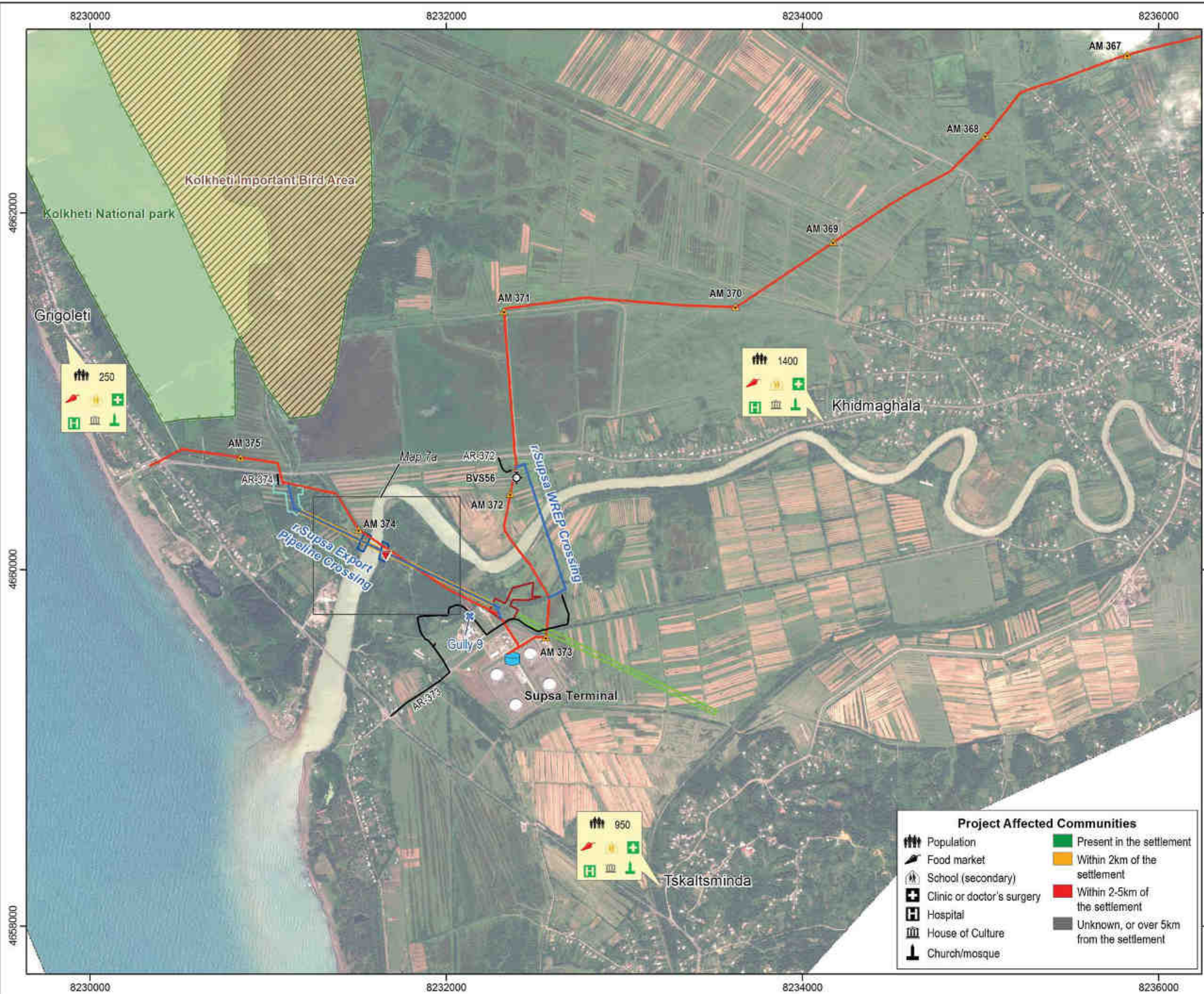


WREP SECTIONAL REPLACEMENT PROJECT

TITLE: Environmental and Social Constraints AR-223, AR-225

0 10 20 40 Meters
 SCALE ON A3: 1:2500

DRAWING No. Map 6h



COORDINATE SYSTEM PARAMETERS
 PROJECTION: GAUSS KRUGER ZONE 8
 ELLIPSOID: KRASOVSKY
 GEODETIC DATUM: PULKOVO 1942
 VERTICAL COORDINATE SYSTEM: KRONSTADT (BALTIC SEA) DATUM

Satellite imagery: BP 2012

LEGEND

- Existing WREP Route
- Aerial Marker
- Block Valve
- WREP SRP Section
- WREP-SR Access Roads
- Protected Area
- Important Bird Areas
- Supsa Export HDD Crossing Stringing Area
- Supsa Export HDD Crossing Tie-in Start Area
- Supsa Export HDD Crossing ROW Area
- Supsa Export HDD Crossing Tie-in End Area
- riv. Supsa bank
- Watercourse crossings
- HCV Species**
- GRL



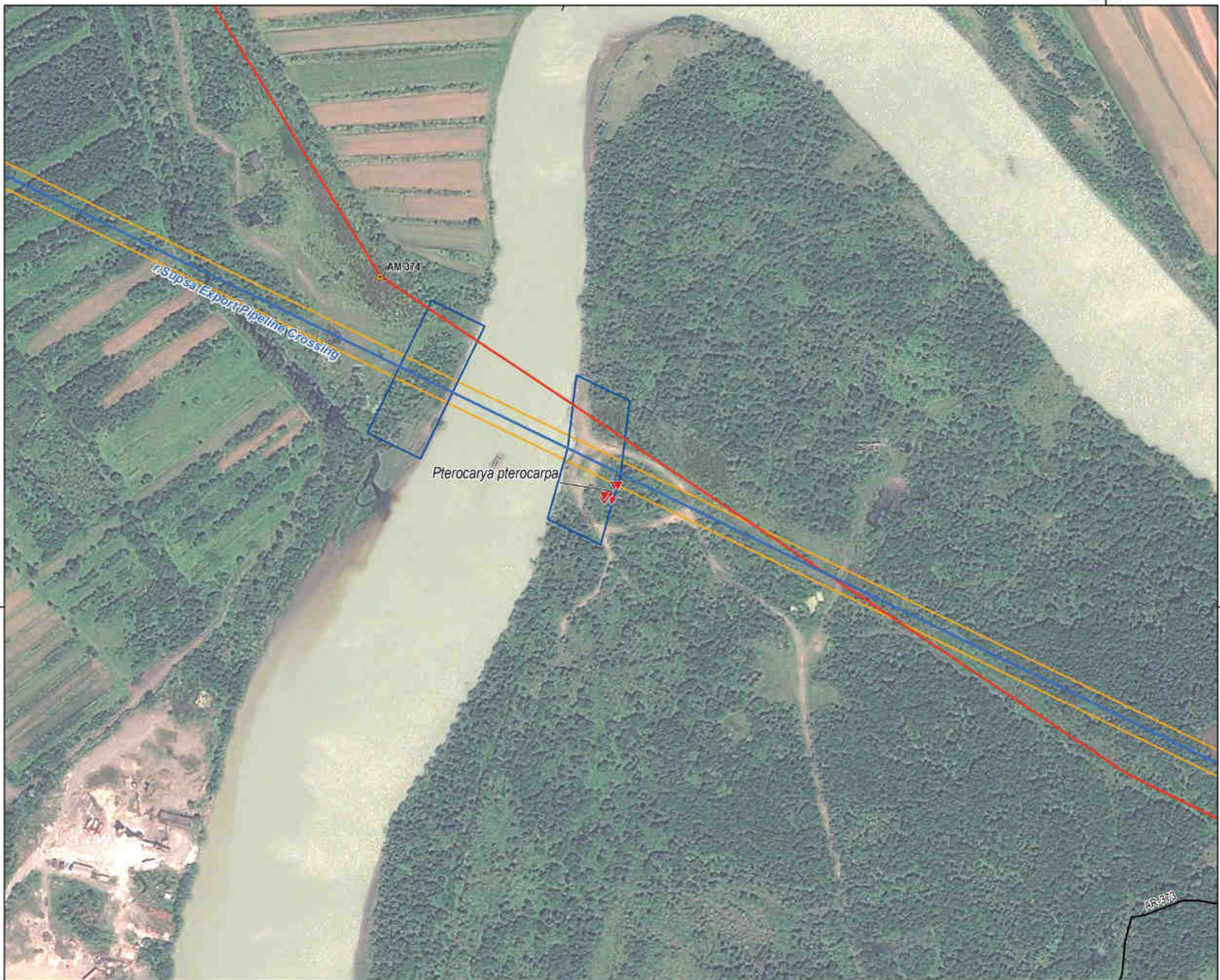
WREP SECTIONAL REPLACEMENT PROJECT

TITLE: Environmental and Social Constraints
 Realigned Supsa HDD Areas

0 125 250 500 Meters
 SCALE ON A3: 1:20000

DRAWING No. Map 7

- Project Affected Communities**
- Population
 - Food market
 - School (secondary)
 - Clinic or doctor's surgery
 - Hospital
 - House of Culture
 - Church/mosque
 - Present in the settlement
 - Within 2km of the settlement
 - Within 2-5km of the settlement
 - Unknown, or over 5km from the settlement



COORDINATE SYSTEM PARAMETERS
 PROJECTION: GAUSS KRUGER ZONE 8
 ELLIPSOID: KRASOVSKY
 GEODETIC DATUM: PULKOVO 1942
 VERTICAL COORDINATE SYSTEM: KRONSTADT (BALTIC SEA) DATUM

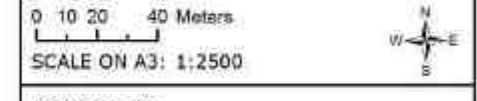
Satellite imagery: BP 2012

- LEGEND**
- Existing WREP Route
 - WREP SRP Section
 - WREP-SR Access Roads
 - Supsa Export HDD Crossing ROW Area
 - riv. Supsa bank
 - ▼ GRL

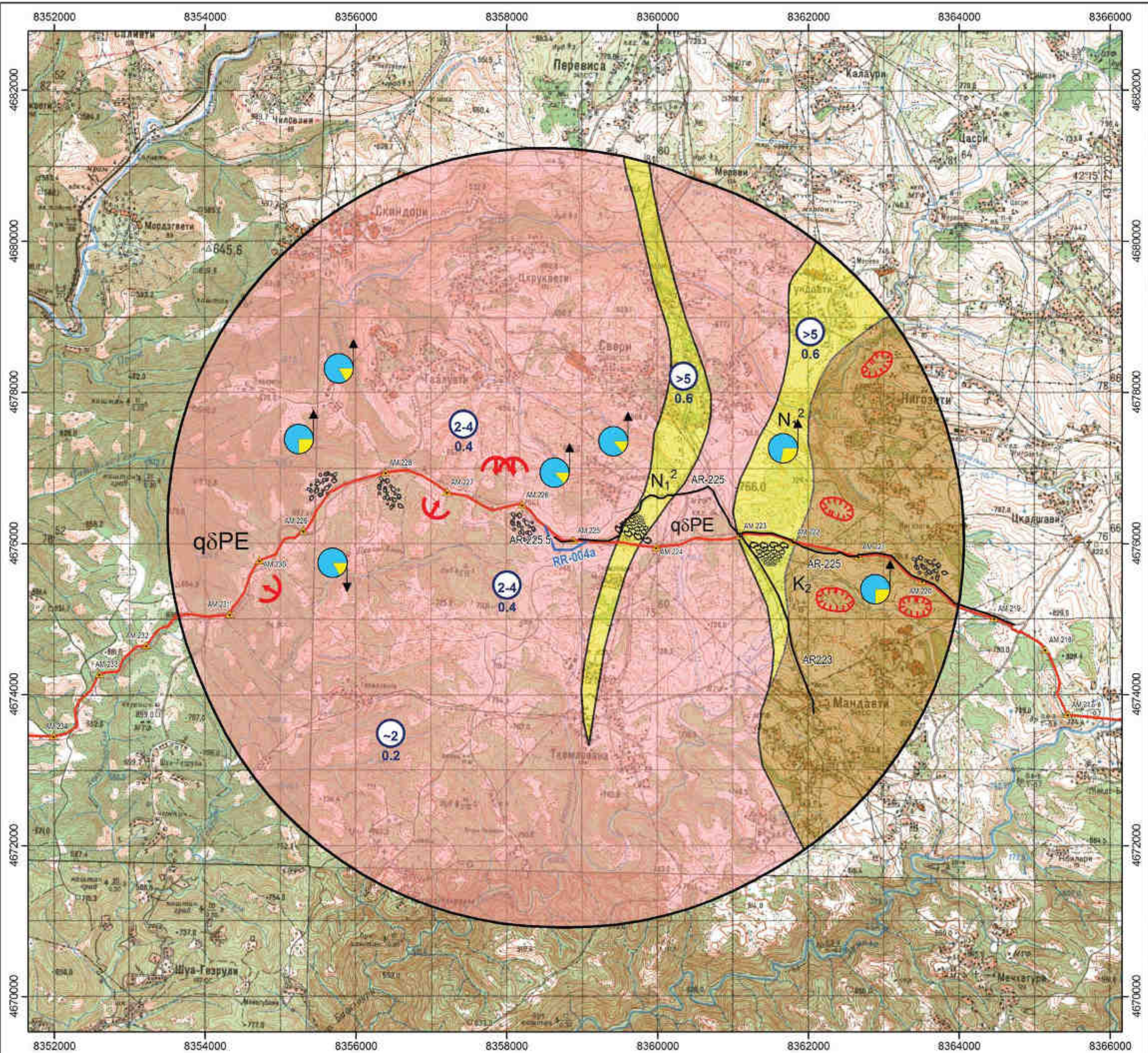


WREP SECTIONAL REPLACEMENT PROJECT

TITLE: Environmental and Social Constraints
 Realigned Supsa HDD Areas



DRAWING No. Map 7a



COORDINATE SYSTEM PARAMETERS

PROJECTION: GAUSS KRUGER
 ZONE 8

ELLIPSOID: KRASOVSKY

GEODETIC DATUM: PULKOVO 1942

VERTICAL COORDINATE SYSTEM: KRONSTADT (BALTIC SEA) DATUM

LEGEND

Existing Route	Gravitational Processes (Landslide)
Aerial Marker	Water Anion Composition
WREP RRs & RPs	HCO3
WREP Access Roads	SO4
Hydrogeological District Borders	CL
Tectonic Fault	Ascending Spring
10-km Wide Buffer Zone Borders	Descending Spring
Groundwater Depth with Water Mineralization (g/l) Below	Water Abstraction
0.5-1.5	Karst
2-5	Collapse / Rock Falls
2-4	Screens
2-4	Water Abstraction
2-4	Hydrogeology Areas
2-4	N ² - Sporadically Water Bearing Middle Miocene Marine Sediments: Clays, Sandstones, Conglomerates, Rarely Limestones, Marls
2-4	K ₂ - Upper Cretaceous Undissected Mestia-Tioneti Zone: Sandstone-Siltstone (Lower Part) and Clastic-Limestony Flysch (Upper Part), Siltstony, Sandstony, Gritstony and Clastic-Limestony Turbidites, Marls, Mudstones with Some Alternating Pelitomorphic Limestones and Marls
2-4	Intrusive Strata
2-4	qδPE - Quartz Diorites, Diorites, Gabro-Diorites (Upper Palaeozoic)

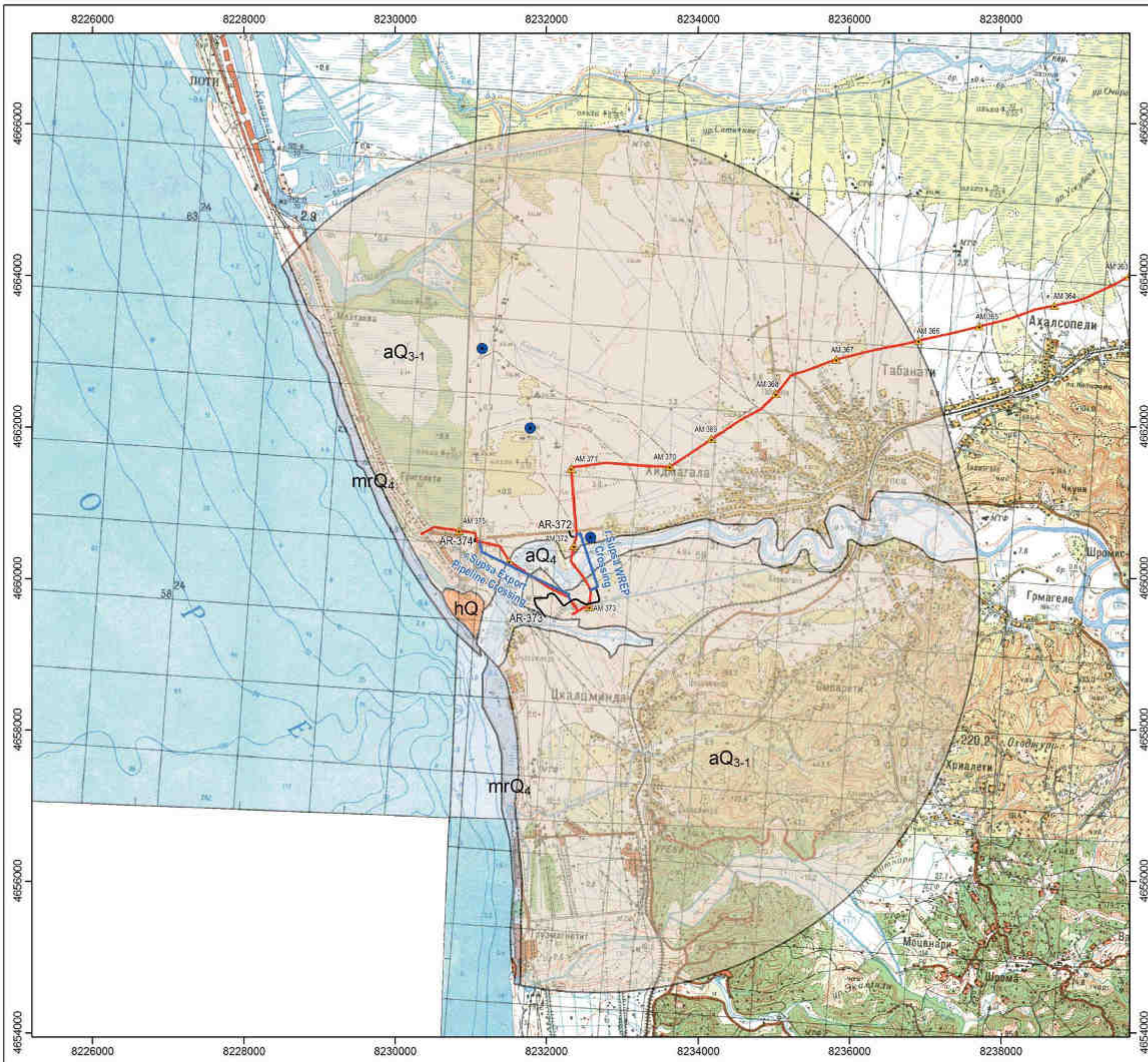
WREP SECTIONAL REPLACEMENT PROJECT

TITLE: Hydrogeology

SCALE ON A3: 1:50000

0 500 1,000 2,000 Meters

Map 3



COORDINATE SYSTEM PARAMETERS

PROJECTION: GAUSS KRUGER
 ZONE 8

ELLIPSOID: KRASOVSKY

GEODETIC DATUM: PULKOVO 1942

VERTICAL COORDINATE SYSTEM: KRONSTADT (BALTIC SEA) DATUM

LEGEND

Existing Route	Gravitational Processes (Landslide)
Aerial Marker	Water Anion Composition
WREP RRs & RPs	HCO3
WREP Access Roads	SO4
Hydrogeological District Borders	CL
Tectonic Fault	Ascending Spring
10-km Wide Buffer Zone Borders	Descending Spring
Groundwater Depth with Water Mineralization (g/l) Below	Water Abstraction
2-5	
0.5-1.5	
Karst	
Collapse / Rock Falls	
Screens	
Hydrogeology Areas	
aQ3-1	
aQ4 - Water Bearing Horizon of River Bed and Floodplain Recent Alluvial Sediments: Shingles, Sand, Sandy Loam	
hQ	
mQ4	

WREP SECTIONAL REPLACEMENT PROJECT

TITLE: Hydrogeology

SCALE ON A3: 1:50000

0 500 1,000 2,000 Meters

Map 4