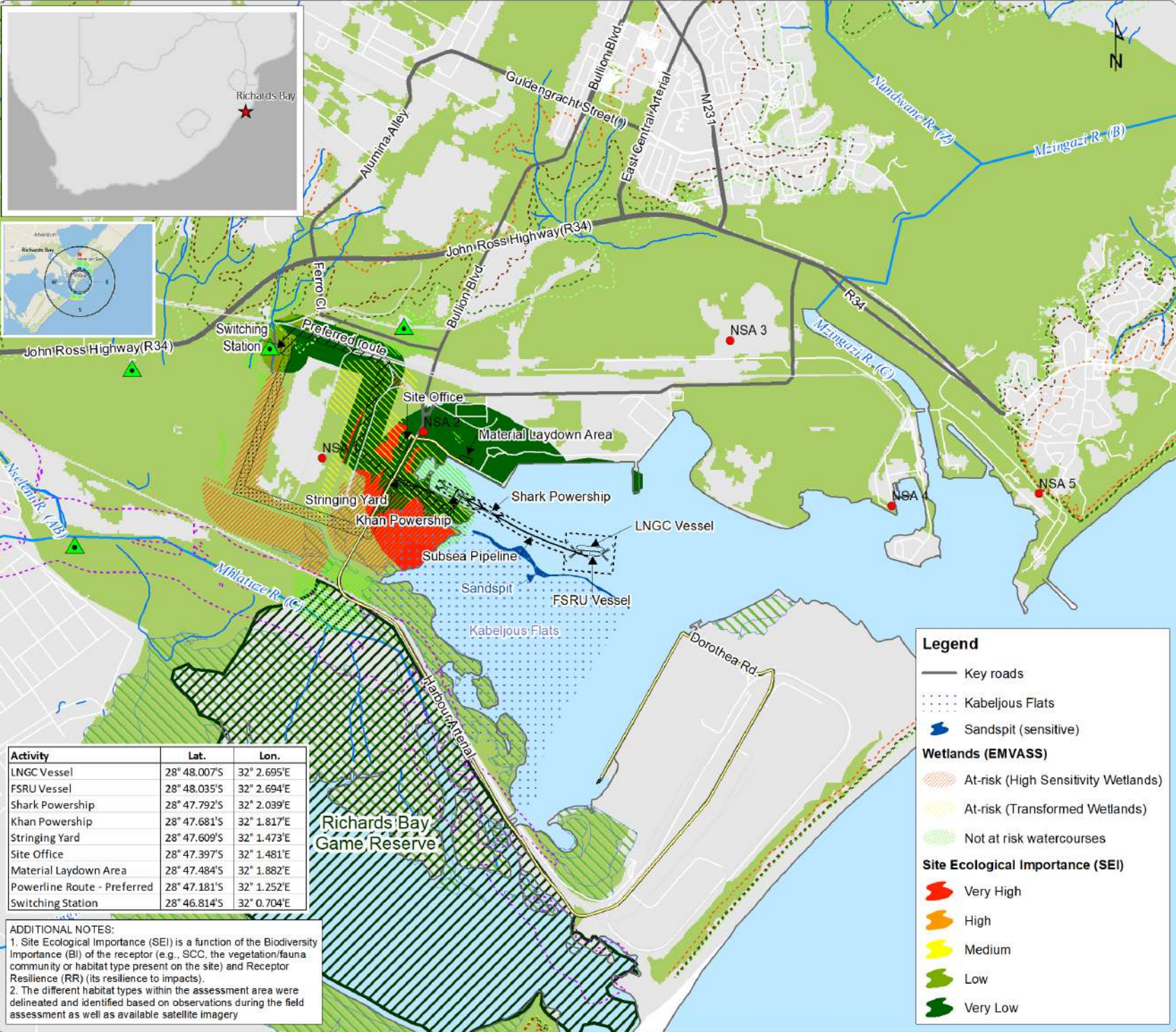


APPENDIX 1: SITE PLANS

APPENDIX 1.1: LOCALITY MAP



Activity	Lat.	Lon.
LNGC Vessel	28° 48.007'S	32° 2.695'E
FSRU Vessel	28° 48.035'S	32° 2.694'E
Shark Powership	28° 47.792'S	32° 2.039'E
Khan Powership	28° 47.681'S	32° 1.817'E
Stringing Yard	28° 47.609'S	32° 1.473'E
Site Office	28° 47.397'S	32° 1.481'E
Material Laydown Area	28° 47.484'S	32° 1.882'E
Powerline Route - Preferred	28° 47.181'S	32° 1.252'E
Switching Station	28° 46.814'S	32° 0.704'E

ADDITIONAL NOTES:
 1. Site Ecological Importance (SEI) is a function of the Biodiversity Importance (BI) of the receptor (e.g., SCC, the vegetation/fauna community or habitat type present on the site) and Receptor Resilience (RR) (its resilience to impacts).
 2. The different habitat types within the assessment area were delineated and identified based on observations during the field assessment as well as available satellite imagery

Legend

- Aquatic Sites
- Noise Sensitive Areas
- Rivers and Streams
- NFEPA River
- Access routes
- 1:50 year floodline
- OHL Route (Preferred)
- OHL Route (Alternative)
- Risk Lines**
- SLR Worst Case (10yrs)
- SLR Worst Case (25yrs)
- SLR Worst Case (50yrs)
- SLR Worst Case (100yrs)
- Protected Area
- Mangrove Forest
- CBA Irreplaceable

Legend

- Key roads
- Kabeljous Flats
- Sandspit (sensitive)
- Wetlands (EMVASS)**
- At-risk (High Sensitivity Wetlands)
- At-risk (Transformed Wetlands)
- Not at risk watercourses
- Site Ecological Importance (SEI)**
- Very High
- High
- Medium
- Low
- Very Low

CLIENTS

NOTES
 1. All data is approximate and subject to survey
 2. NFEPA Rivers: the letter in brackets denotes river condition -
 A = Unmodified, Natural
 B = Largely Natural with few modifications
 AB = A or B above
 C = Moderately Modified

PROJECT

Gas to Power Project

MAP TITLE

Richards Bay Port Locality Map

COMPILED BY

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Scale 1:40 000 (on an A3 page)



Legend

- Access routes
- OHL Route (Preferred)
- OHL Route (Alternative)
- Land Cover - Transformed

CLIENTS

KARPOWERSHIP
SOUTH AFRICA

triplo4
SUSTAINABLE SOLUTIONS

NOTES

1. All data is approximate and subject to survey

PROJECT

Gas to Power Project

MAP TITLE

**Richards Bay Port
Locality**

COMPILED BY

Andrew Schultz
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Scale 1:40 000
(on an A3 page)



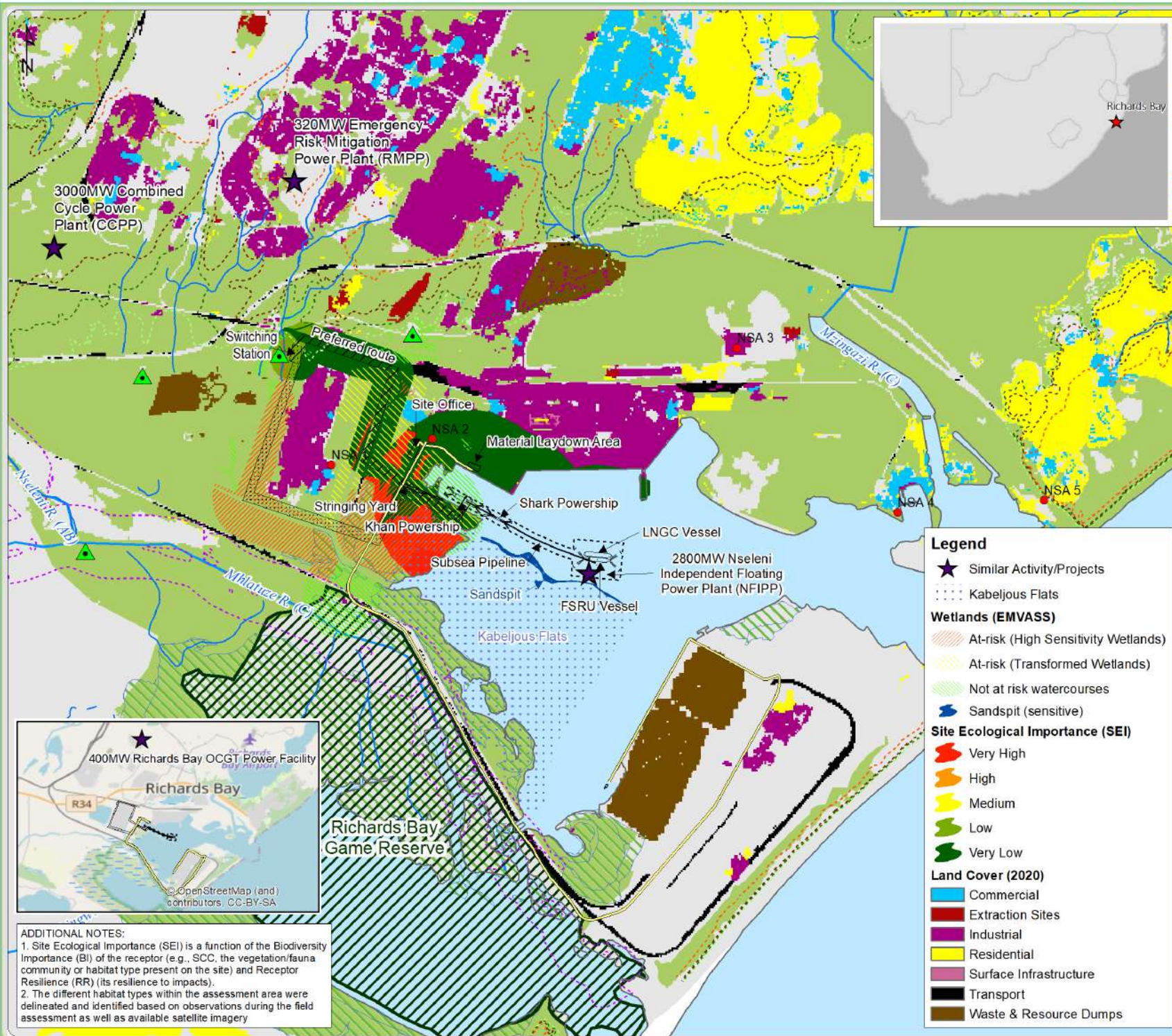
Map Ref: RB_EIA_Locality_02-Transformed

Date: 08.Nov.22

Dataset Credits:

Department of Rural Development & Land Reform; CDNGI & CBS; PRDW; SANBI & Triplo4

APPENDIX 1.2: DFFE CUMULATIVE MAP



ADDITIONAL NOTES:
 1. Site Ecological Importance (SEI) is a function of the Biodiversity Importance (BI) of the receptor (e.g., SCC, the vegetation/fauna community or habitat type present on the site) and Receptor Resilience (RR) (its resilience to impacts).
 2. The different habitat types within the assessment area were delineated and identified based on observations during the field assessment as well as available satellite imagery

Legend

- Aquatic Sites
- Noise Sensitive Areas
- Rivers and Streams
- NFEPA River
- Access routes
- 1:50 year floodline
- OHL Route (Preferred)
- OHL Route (Alternative)
- Risk Lines**
- SLR Worst Case (10yrs)
- SLR Worst Case (25yrs)
- SLR Worst Case (50yrs)
- SLR Worst Case (100yrs)
- Protected Area
- Mangrove Forest
- CBA Irreplaceable

Legend

- Similar Activity/Projects
- Kabeljous Flats
- Wetlands (EMVASS)**
- At-risk (High Sensitivity Wetlands)
- At-risk (Transformed Wetlands)
- Not at risk watercourses
- Sandspit (sensitive)
- Site Ecological Importance (SEI)**
- Very High
- High
- Medium
- Low
- Very Low
- Land Cover (2020)**
- Commercial
- Extraction Sites
- Industrial
- Residential
- Surface Infrastructure
- Transport
- Waste & Resource Dumps

CLIENTS

NOTES
 1. All data is approximate and subject to survey
 2. NFEPA Rivers: the letter in brackets denotes river condition -
 A = Unmodified, Natural
 B = Largely Natural with few modifications
 AB = A or B above
 C = Moderately Modified

PROJECT

Gas to Power Project

MAP TITLE

Richards Bay Port Cumulative Map

COMPILED BY

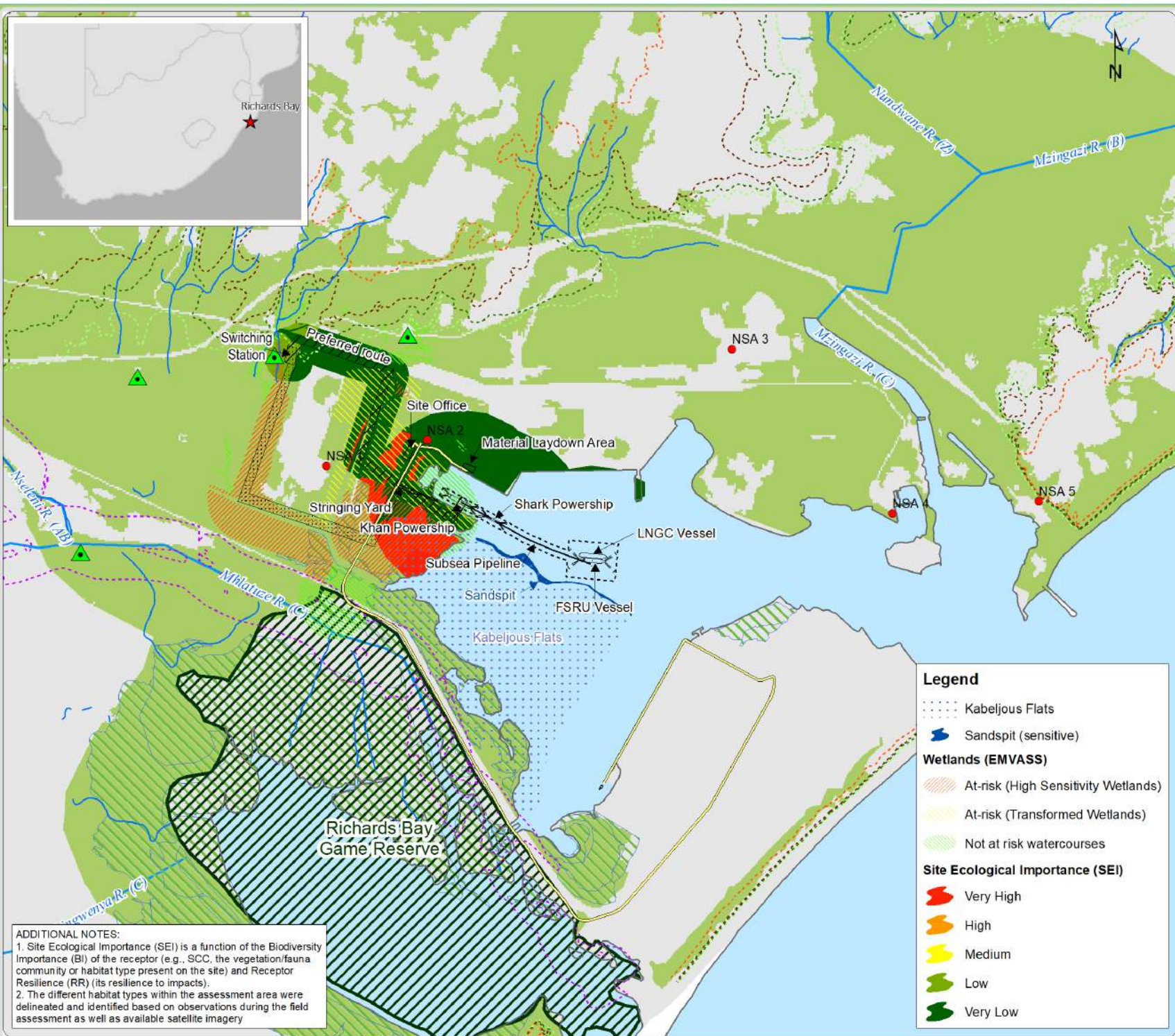
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 P.O. Box 109633, Scarborough, Johannesburg, 2109, ZA

Scale 1:40 000
 (on an A3 page)

Map Ref: RB_EIA_Cumulative_04 Date: 08.Nov.22

Dataset Credits:
 Department of Rural Development & Land Reform: CDNGI & C8G, Ezemvelo KZN Wildlife, PRDW, SANBI, Salttech & Triplco4

APPENDIX 1.3: SENSITIVITY MAP



ADDITIONAL NOTES:
 1. Site Ecological Importance (SEI) is a function of the Biodiversity Importance (BI) of the receptor (e.g., SCC, the vegetation/fauna community or habitat type present on the site) and Receptor Resilience (RR) (its resilience to impacts).
 2. The different habitat types within the assessment area were delineated and identified based on observations during the field assessment as well as available satellite imagery

Legend

- Kabeljous Flats
- 👉 Sandspit (sensitive)
- Wetlands (EMVASS)**
- 👉 At-risk (High Sensitivity Wetlands)
- 👉 At-risk (Transformed Wetlands)
- 👉 Not at risk watercourses
- Site Ecological Importance (SEI)**
- 👉 Very High
- 👉 High
- 👉 Medium
- 👉 Low
- 👉 Very Low

Legend

- 👉 Aquatic Sites
- Noise Sensitive Areas
- 👉 Rivers and Streams
- 👉 NFEPA River
- 👉 Access routes
- 👉 1:50 year floodline
- 👉 OHL Route (Preferred)
- 👉 OHL Route (Alternative)
- Risk Lines**
- 👉 SLR Worst Case (10yrs)
- 👉 SLR Worst Case (25yrs)
- 👉 SLR Worst Case (50yrs)
- 👉 SLR Worst Case (100yrs)
- 👉 Protected Area
- 👉 Mangrove Forest
- 👉 CBA Irreplaceable

CLIENTS

KARPOWERSHIP SOUTH AFRICA

triplo4 sustainable solutions

NOTES

1. All data is approximate and subject to survey
 2. NFEPA Rivers: the letter in brackets denotes river condition -
 A = Unmodified, Natural
 B = Largely Natural with few modifications
 AB = A or B above
 C = Moderately Modified

PROJECT

Gas to Power Project

MAP TITLE

Richards Bay Port Sensitivity Map

COMPILED BY

Andrew Schultz consulting

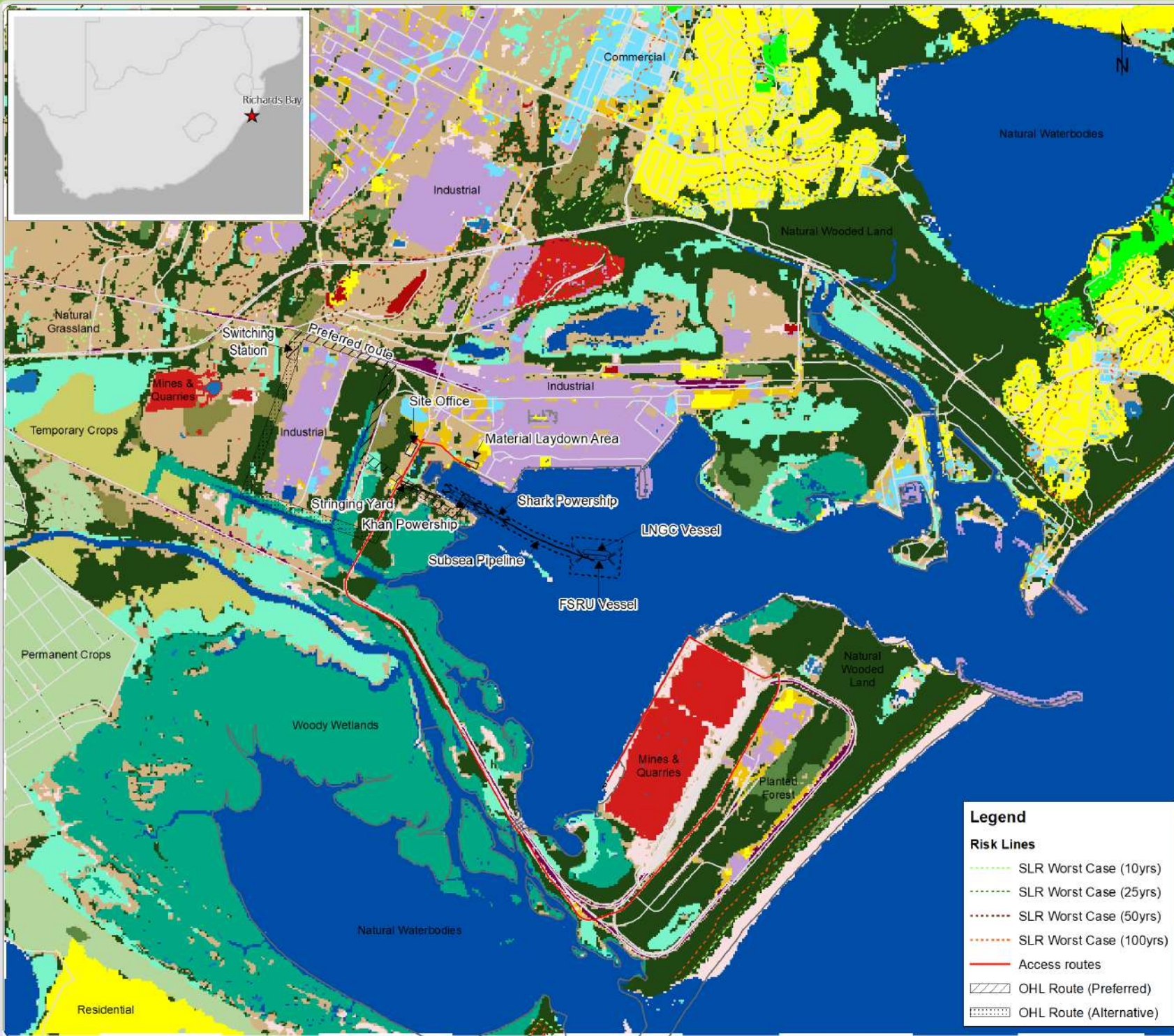
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Scale 1:40 000 (on an A3 page)

Map Ref: RB_EIA_Sensitivity_05 Date: 07-Nov-22

Dataset Credits:
 Department of Rural Development & Land Reform: CDNGI & C8G, Ezemvelo KZN Wildlife, PRDW, SANBI, Salttech & Triplo4

APPENDIX 1.4: LAND COVER



Legend

- Artificial Waterbodies
- Commercial
- Natural rock surfaces & dry pans
- Mines & quarries
- Fallow Lands & Old Fields
- Herbaceous Wetlands
- Industrial
- Natural Grassland
- Natural Waterbodies
- Natural Wooded Land
- Permanent Crops
- Planted Forest
- Residential
- Surface Infrastructure
- Temporary Crops
- Transport
- Barren land incl. coastal land & dunes
- Urban Vegetation
- Village
- Waste & Resource Dumps
- Woody Wetlands

CLIENTS



NOTES

1. All data is approximate and subject to survey

PROJECT

Gas to Power Project

MAP TITLE

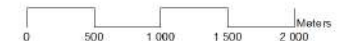
**Richards Bay Port
Land Cover (2020)**

COMPILED BY



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Scale 1:40 000
(on an A3 page)



Map Ref: RB_EIA_LandCover_02 Date: 08.Nov.22

Dataset Credits:
Department of Rural Development & Land Reform: CDNGI & CBS, PRDW, SANBI, Triplco4 & KZN EDTEA

Legend

- #### Risk Lines
- SLR Worst Case (10yrs)
 - SLR Worst Case (25yrs)
 - SLR Worst Case (50yrs)
 - SLR Worst Case (100yrs)
 - Access routes
 - OHL Route (Preferred)
 - OHL Route (Alternative)

APPENDIX 1.5: PREFERRED POWERSHIP AND FSRU LOCATION

A1 DO NOT SCALE - IF IN DOUBT ASK



LOCATION PLAN
SCALE 1:50'000



SETTING-OUT POINTS			
	POINT	EASTING (Y)	NORTHING (X)
POLYGON BOUNDARY	P1	94848.5	3186742.5
	P2	93941.1	3187245.3
	P3	93802.8	3187314.9
	P4	93659.5	3187373.3
	P5	93504.5	3187429.3
	P6	93495.0	3187317.1
	P7	92965.0	3187363.1
	P8	92999.5	3187761.6
	P9	93528.8	3187715.8
	P10	93514.0	3187540.7
	P11	93696.2	3187474.8
	P12	93847.5	3187413.2
	P13	93993.5	3187339.8
	P14	94900.9	3186837.0
SUBSEA PIPELINE	S1	93266.2	3187572.8
	S2	93677.8	3187424.0
	S3	93825.2	3187364.0
	S4	93967.3	3187292.5
	S5	94296.8	3187110.0
	S6	94335.6	3187088.5
	S7	94659.4	3186909.1
FSRU	FB	93103.0	3187551.2
	FC	93247.3	3187539.3
	FS	93391.5	3187527.5
LNGC	CB	93086.3	3187499.7
	CC	93234.5	3187487.6
	CS	93382.7	3187475.4
KPS KHAN	KB	94552.4	3186968.3
	KC	94678.7	3186898.3
	KS	94805.1	3186828.3
KPS SHARK	SB	94238.1	3187142.5
	SC	94316.2	3187099.2
	SS	94394.3	3187055.9

PART	LENGTH / AREA
SUBSEA PIPELINE FROM FSRU	1133m
SUBSEA PIPELINE to POWERSHIP	370m
FSRU / SUBSEA PIPELINE POLYGON	212679m ²
KPS POLYGON AREA	165828m ²

- B VESSEL BOW COORDINATE
- C MID SHIP COORDINATE
- S VESSEL STERN COORDINATE

FOR EIA SUBMISSION

REFERENCE DRAWINGS	
DRAWING NO.	REFERENCE

NOTES:

COORDINATE SYSTEM
 GEODETIC DATUM : HARTEBEEHOCK 94
 ELLIPSOID : WORLD GEODETIC SYSTEM 1984 (WGS 84)
 PROJECTION : GAUSS CONFORM Lo33
 GEOID MODEL : SA GEOID 2010
 CENTRAL MERIDIAN : 33°00'00" E
 VERTICAL DATUM : CHART DATUM (CD) = LAND LEVEL DATUM (LLD) -1.015m

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NO.	DESCRIPTION	BY	CHK'D	DATE	APPROVED

NAME	SIGNED	DATE

CLIENT	Karpowership SA (Pty) Ltd
PROJECT	KARPOWERSHIP SA RICHARDS BAY (RM-TA-0145-002)
DRAWING TITLE	EIA ASSESSMENT AREAS OPERATIONAL AREAS
SCALE	1:3000
CODE	S2117-07 - SK - GA - 211 - S1 - B
NO.	
CATEGORY	
DISCIPLINE	
CONSECUTIVE	
SHEET	
REVISION	
DRAFT	



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APPENDIX 1.6: ALTERNATIVE POWERSHIP AND FSRU LOCATION

A1 DO NOT SCALE - IF IN DOUBT ASK



FOR EIA SUBMISSION

REFERENCE DRAWINGS	
DRAWING NO.	REFERENCE

NOTES:

1. GEODETIC PARAMETERS: GAUSS CONFORM CLARKE 1880 CM31.
2. BATHYMETRY: ADVERTISED DREDGE DEPTHS AS PER TRANSNET, PORT OF RICHARDS BAY MASTERPLAN (FILE RECEIVED 2015).
3. CHART DATUM PORT (CDP) IS 0.9 m BELOW MEAN SEA LEVEL (MSL).

NO.	DESCRIPTION	BY	CHK'D	DATE
A	ISSUED FOR EIA SUBMISSION.	RA	SAH	21-10-2022

NAME	SIGNED	DATE
DRAWN BY	DAL	18-05-2020
DRAWING CHECKED	JB	18-05-2020
DESIGN CHECKED	WGD	18-05-2020
APPROVED	DRP	18-05-2020
FILE NAME	S2117-07-SK-GA-223-S1 A.dwg	
TIME STAMP	21 October 2022 12:46:32	

CLIENT
Karpowership SA (Pty) Ltd

PROJECT
KARPOWERSHIP SA
RICHARDS BAY (RM-TA-0145-002)

DRAWING TITLE
**EIA ASSESSMENT
ALTERNATIVE LAYOUT
(NOT PREFERRED OPTION)**

SCALE: AS SHOWN

NO.	DESCRIPTION	BY	CHK'D	DATE

F:\PRDW\S2117 Engineering - Drawings\07 Work in Progress\EIA - RB WIP\S2117-07-SK-GA-223-S1 A.dwg

APPENDIX 1.7: TRANSMISSION LINE ALTERNATIVES



Google Earth

Image © 2022 CNES / Airbus

**APPENDIX 1.8: CONSTRUCTION
LAYDOWN AREAS AND ACCESS
ROADS**

A1 DO NOT SCALE - IF IN DOUBT ASK



LOAD-OUT BERTH ROAD ACCESS ROUTE
SCALE 1:20'000

VEHICLE ROAD ACCESS ROUTE - LEGEND	
	VEHICLE ROAD ACCESS ROUTE - LOAD-OUT BERTH
	VEHICLE ROAD ACCESS ROUTE - LAYDOWN
	VEHICLE ROAD ACCESS ROUTE - STRINGING YARD
	VEHICLE ROAD ACCESS ROUTE - OFFICE

FOR EIA SUBMISSION

REFERENCE DRAWINGS	
DRAWING NO.	REFERENCE

NOTES:

COORDINATE SYSTEM
 GEODETIC DATUM : HARTEBEEHOCK 94
 ELLIPSOID : WORLD GEODETIC SYSTEM 1984 (WGS 84)
 PROJECTION : GAUSS CONFORM Lg33
 GEOID MODEL : SA GEOID 2010
 CENTRAL MERIDIAN : 33°00'00" E
 VERTICAL DATUM : CHART DATUM (CD) = LAND LEVEL DATUM (LLD) -1.015m

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A	ISSUED FOR EIA SUBMISSION	RA	SAH	21-10-2022

NAME	SIGNED	DATE
DRAWN BY	RI	29-09-2022
DRAWING CHECKED	SAH	29-09-2022
DESIGN CHECKED	SAH	29-09-2022
APPROVED	WGD	29-09-2022

CLIENT
 Karpowership SA (Pty) Ltd

PROJECT
 KARPOWERSHIP SA
 RICHARDS BAY (RM-TA-0145-002)

DRAWING TITLE
**EIA ASSESSMENT AREAS
 ACCESS ROUTES**

SCALE
 1:2000

CODE NO. CATEGORY DISCIPLINE CONSECUTIVE SHEET REVISION DRAFT
 S2117-07 - SK - GA - 202 - S1 - A

