

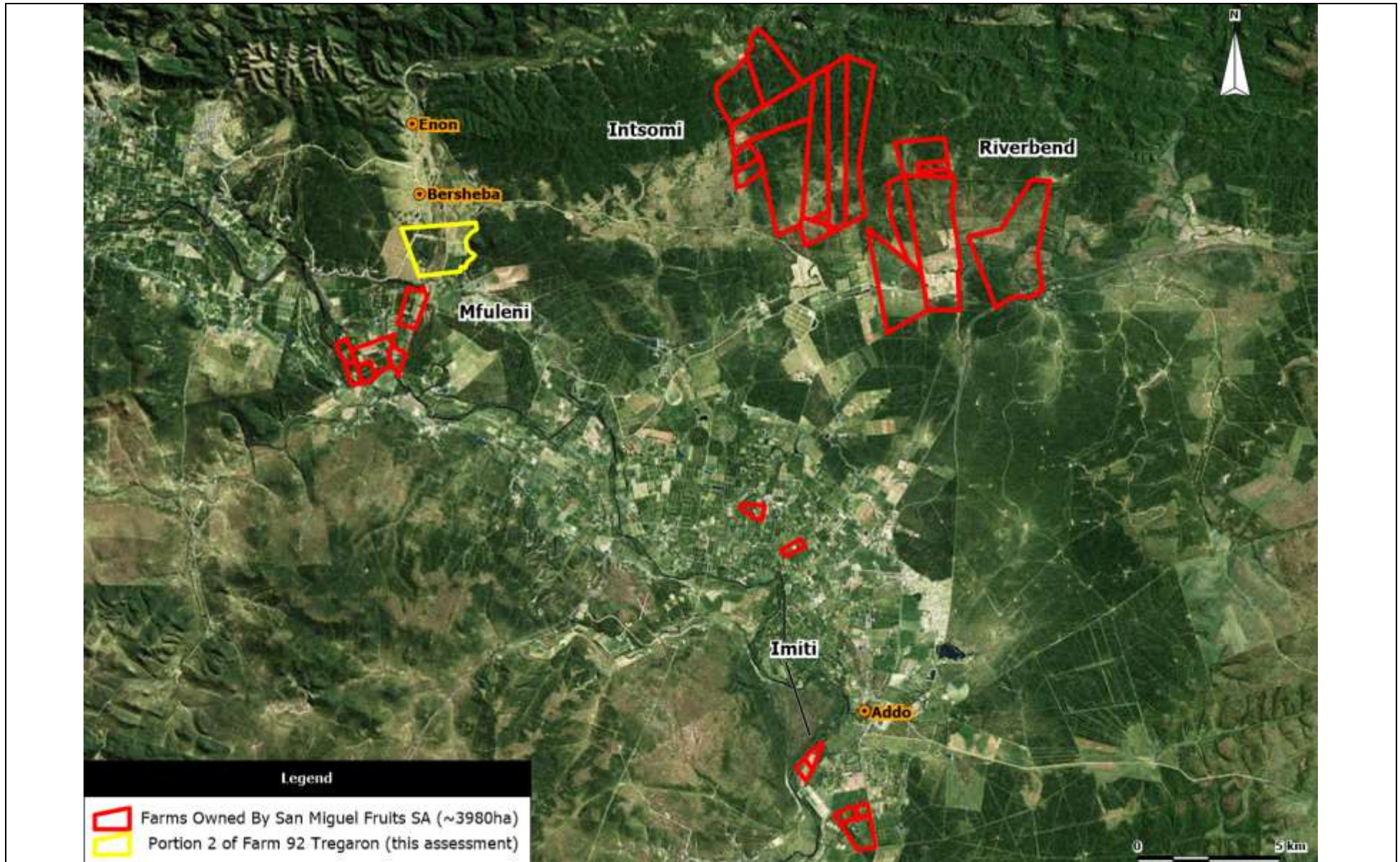
# APPENDIX J: VEGETATION TRANSFORMATION ON APPLICANT'S PROPERTIES

## 1. TOTAL LAND OWNED

The applicant, San Miguel Fruits SA (Pty) Ltd, currently owns a number of farms in the Sundays River Valley Municipal area, totaling ~3980ha in extent. Currently ~1754ha thereof (~44%) has been transformed for the commercial production of citrus. These farms are indicated in Table 1 and Map 1 below. For ease of reference, some of the farm portions have been grouped together into larger units due to their proximity.

*Table 1: Farms currently owned by the applicant and their relevant extents.*

FARM NAME	PORTION/ FARM NO.	EXTENT (~Ha)
Mfuleni	2/92 6/84 10/84 11/84 16/84 22/84 30/84	477
Imiti	1/124 12/122 14/122 21/122 22/122 38/115 316/113	167
Riverbend	1/77 3/77 1/104 18/104 1/82 11/82	1502
Intsomi	101 103 RE/ 100 9/100 10/100 14/100 3/39 9/39 RE/ 104 661	1834
<b>TOTAL</b>		<b>3980</b>



Map 1: All the farms currently owned by the applicant (San Miguel Fruits SA PTY LTD), totaling ~3980ha in extent.

## 2. TRANSFORMED LAND

The applicant has undertaken a number of agricultural development and expansion projects in recent years, which have resulted in the transformation of some of the indigenous vegetation on the farms owned by San Miguel Fruits SA (Pty) Ltd. However, prior to the purchase of some of the farms, by the applicant, the indigenous vegetation was **historically transformed**. Table 2 below indicates the portion of the land that is currently owned by the applicant which has been transformed from indigenous vegetation. The transformation undertaken by the applicant has been distinguished from historical transformation (**previous landowners**).

Table 2: Farms owned by the applicant and levels of transformation (units in hectares).

Vegetation Types	Original Extent	Current Extent	Historically Transformed	Transformed by Applicant	Proposed for Transformation	Total Transformed (including proposed transformation)	Total Retained	Percentage of Original Extent Retained	Percentage of Current Extent Retained
Sundays Thicket	2276	1781	224	271	0	495	1781	78%	100%
Sundays Spekboom Thicket	488	188	268	32	55 <sup>1</sup>	355	133	27%	71%
Sundays Doringveld	1024	158	852	14	0	866	158	15%	100%
Kremlin Grassland Thicket	155	90	52	13	0	65	90	58%	100%
Riparian	37	9	28	0	0	28	9	24%	100%
<b>Totals</b>	<b>3980</b>	<b>2226</b>	<b>1424</b>	<b>330</b>	<b>55</b>	<b>1809</b>	<b>2171</b>	<b>55%</b>	<b>98%</b>
		<b>Percentage Transformed</b>	<b>36%</b>	<b>8%</b>	<b>1%</b>	<b>45%</b>			

<sup>1</sup> Approximately 10ha of the area proposed for transformation has been modified (transformed) from Sundays Spekboom Thicket (SST). Therefore, while 65ha of indigenous vegetation is proposed for transformation, only 55ha of SST has been indicated as proposed for transformation.

Approximately 44% of the indigenous vegetation that historically occurred on the properties currently owned by the applicant, has been transformed (historically transformed + transformed by the applicant). Subject to the receipt of a positive Environmental Authorisation for the clearance of ~65ha on Portion 2 of Farm 92, known as Sylvania Farm, this figure would change to approximately 45%. The applicant has been responsible for the transformation of ~8%, while the previous owners of the farms were responsible for the transformation of ~36% of the original indigenous vegetation.

### **3. CONSERVATION TARGETS**

A series of maps and tables are provided below to indicate the following:

- The vegetation types indicated by the various planning frameworks.
- The total area of each vegetation type that has been transformed.
- The total area of each vegetation type that is not proposed for transformation on the properties owned by the applicant and the applicable conservation targets.

#### **a. Approach to the Mapping and Conservation Targets**

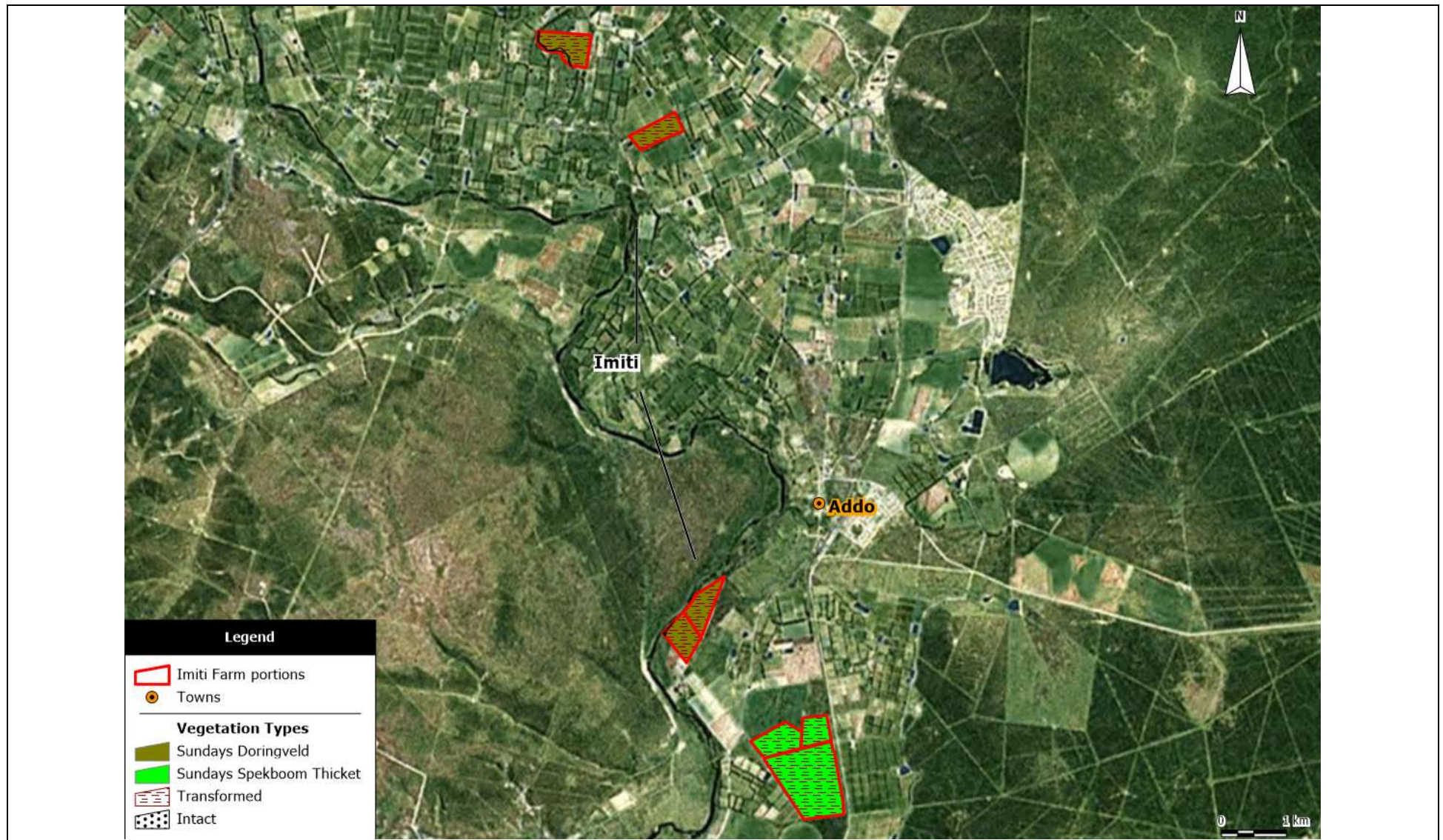
Farms that do not form part of the current Scoping and EIA process (this assessment), were not visited during the assessment process and, therefore, the accuracy of the mapping frameworks for these farms have not been ground-truthed. However, previous Environmental Assessments have been undertaken for some farms owned by the applicant (e.g. Intsomi and Riverbend) and, therefore, the vegetation types and their extent are deemed to be accurate for these farm portions. With respect to the remaining farms, calculations of the original and remaining extent, as well as their contributions to conservation targets, are based on the assumption that the vegetation has been accurately mapped in the planning framework mapping resources. Aerial imagery was used to determine portions of the properties that have been transformed. The Succulent Thicket Ecosystem Programme (STEP) and associated mapping resources have been utilized to determine vegetation types, as well as the respective biodiversity conservation targets. The biodiversity conservation targets proposed by SA VegMap (Vegetation of South Africa, Lesotho and Swaziland by Mucina and Rutherford, 2006) have also been indicated where applicable.

#### **b. Existing and Potential Future Scenario**

The maps and tables below indicate the current and potential future extent of vegetation types on the farms owned by the applicant, because of the transformation (historical and by the applicant) on these farms. In addition, the percentage of vegetation that has not been transformed is indicated to determine whether conservation targets, as prescribed by STEP and VegMap (where applicable) for each of the vegetation types, have been met on each of the farms. In instances where the conservation target of a particular vegetation type has not been met, this figure has been indicated in **RED**.



• **Imiti Farms**



Map 2: Current scenario on the Imiti farms.

Map 2 above indicates the portions of the Imiti Farms which have been transformed (hatching), as well as the vegetation on the remainder of the farms (dots) that remain intact.

Table 3: Extent of vegetation types occurring on Imiti Farms and levels of transformation (units in hectares).

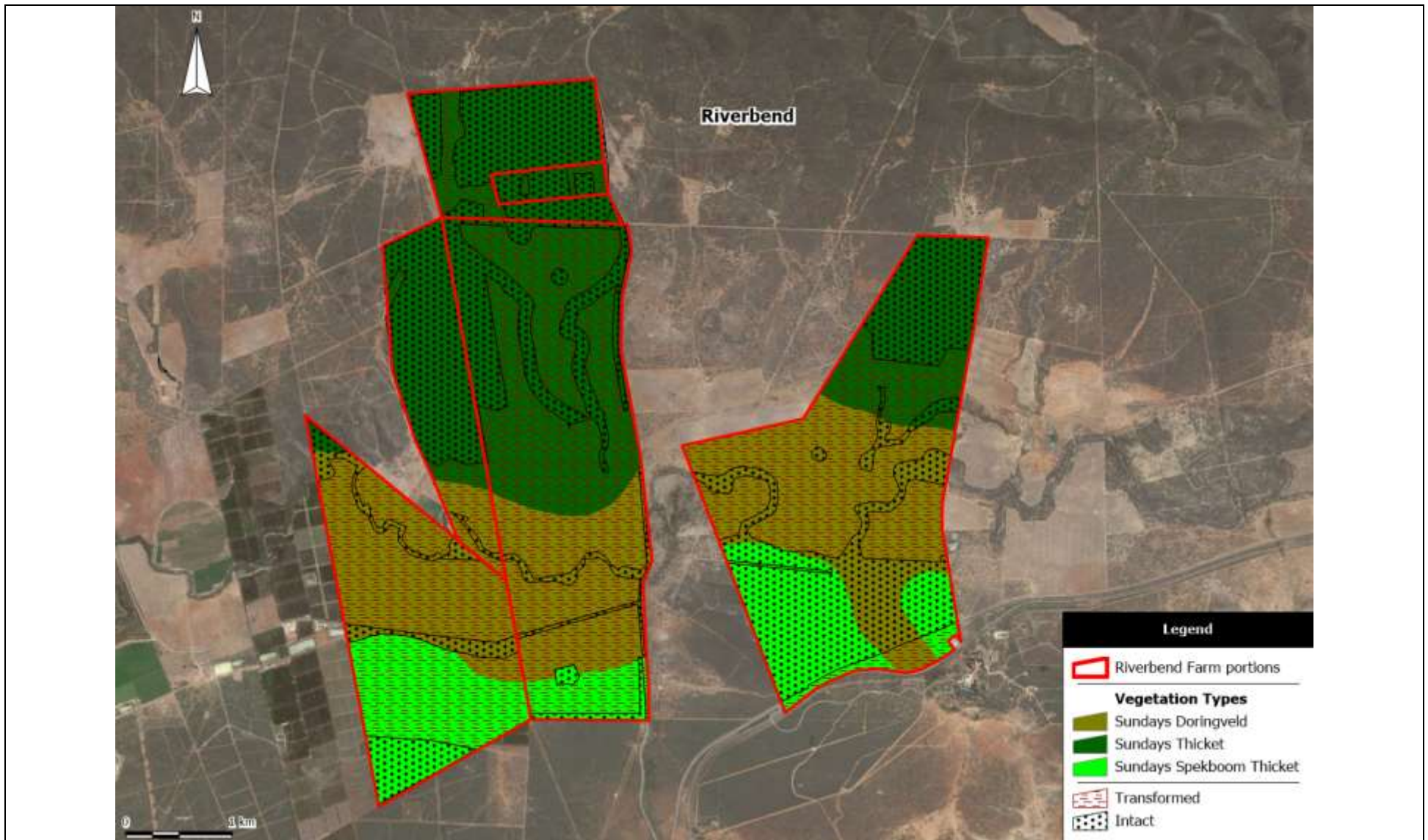
Vegetation Types	Original Extent	Current Extent	Total Transformed	Total Retained	Percentage of Original Retained	STEP Conservation Target	VegMap Conservation Target
Sundays Spekboom Thicket	98	0	98	0	0%	18%	19%
Sundays Doringveld	69	2	67	2	3%	17%	31% (AAV) <sup>2</sup>
<b>Totals</b>	<b>167</b>	<b>2</b>	<b>165</b>	<b>2</b>	<b>1%</b>		

Most of the indigenous vegetation that historically occurred on the farms known as Imiti, has been transformed. All of the transformation was undertaken by the **previous landowner**. Therefore, the conservation targets for the vegetation types are not met on these farms. A small patch of intact vegetation appears to occur along the banks of the Sundays River (on Portion 38 of Farm 115). The remaining intact vegetation is not proposed for transformation.

<sup>2</sup> AAV stands for Albany Alluvial Vegetation which is synonymous with Sundays Doringveld. AAV is an Endangered vegetation type and declared as a threatened ecosystem in terms of NEMBA. The higher conservation target of 31% is therefore considered the preferred target to be met.



- **Riverbend Farms**



Map 3: Current scenario on the Riverbend farms.

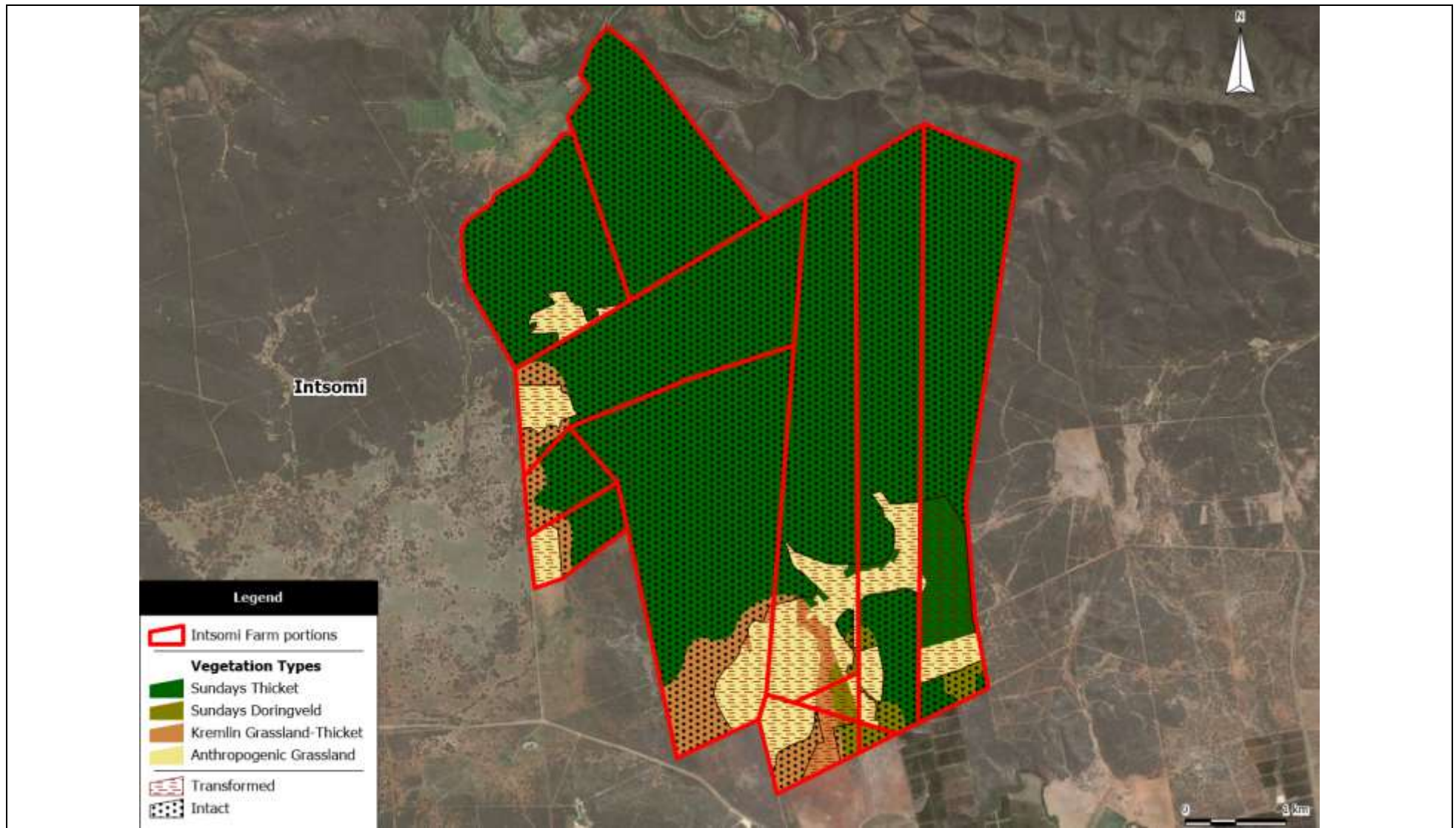
Table 4: Extent of vegetation types occurring on Riverbend farms and levels of transformation (units in hectares).

Vegetation Types	Original Extent	Current Extent	Total Transformed	Total Retained	Percentage of Original Retained	STEP Conservation Target	VegMap Conservation Target
Sundays Thicket	665	335	330	335	50%	22%	19%
Sundays Doringveld	574	93	481	93	16%	17%	31% (AAV)
Sundays Spekboom Thicket	263	117	146	118	45%	18%	19%
<b>Totals</b>	<b>1502</b>	<b>545</b>	<b>957</b>	<b>546</b>	<b>36%</b>		

Approximately 957ha (64%) of indigenous vegetation which occurred on the farms making up Riverbend has been transformed. Approximately 230ha (15%) thereof was transformed by the applicant. The remaining transformation (727ha/ 48%), the majority of which was likely Sundays Doringveld, was undertaken by the **previous landowner**. Therefore, the conservation target for Sundays Doringveld (AAV) is not met on these farms. The conservation targets for Sundays Thicket and Sundays Spekboom Thicket are, however, met on the Riverbend Farms.



- **Intsomi Farms**



Map 4: Current scenario on the Intsomi farms.

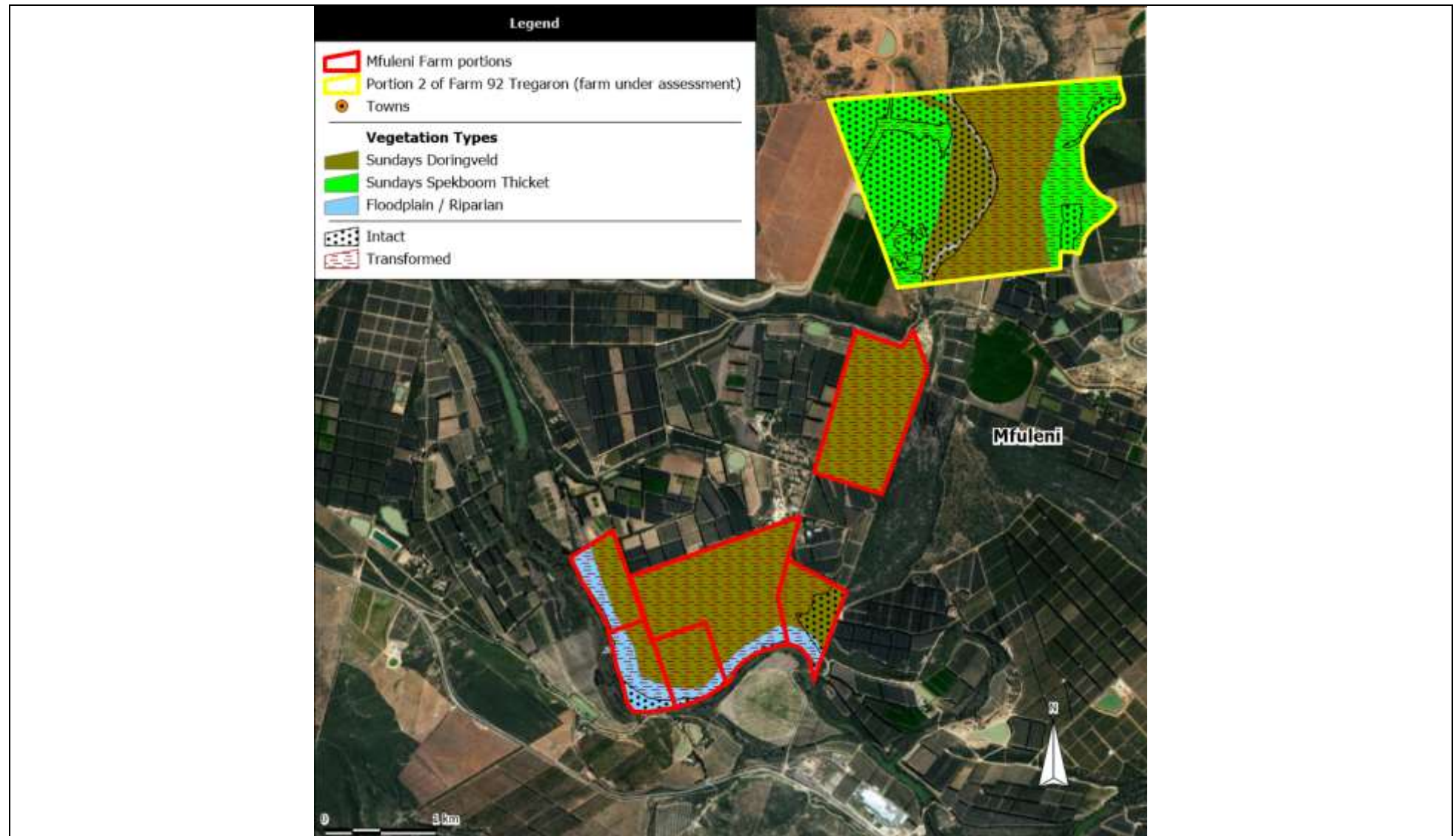
Map 4 above indicates the portions of the Intsomi farms which have been transformed (hatching), as well as the vegetation on the remainder of the farms (not hatched) that remains intact. An Environmental Authorisation was recently issued to the applicant, to allow for the clearing of approximately 200ha of indigenous vegetation for the establishment of citrus orchards. While it is our understanding that this proposed transformation has not yet occurred, it has been indicated in the map above and the table below as having already been transformed, since it is anticipated that this transformation will proceed.

Table 5: Extent of vegetation types occurring on Intsomi farms and levels of transformation (units in hectares).

Vegetation Types	Original Extent	Current Extent	Total Transformed	Total Retained	Percentage of Original Retained	STEP Conservation Target	VegMap Conservation Target
Kremlin Grassland Thicket	155	90	65	90	58%	17%	N/A
Sundays Doringveld	68	18	50	18	26%	17%	31% (AAV)
Sundays Thicket	1611	1446	165	1446	90%	22%	19%
<b>Totals</b>	<b>1834</b>	<b>1554</b>	<b>280</b>	<b>1554</b>	<b>85%</b>		

The previous Environmental Impact Assessment conducted on the Intsomi farms identified the vegetation types as Sundays Thicket, Sundays Doringveld and Kremlin Grassland Thicket. The relative conservation targets for Sundays Thicket and Kremlin Grassland Thicket have been met on Intsomi Farms. The VegMap conservation target for AAV (31%) has not been met on these farms. However, the majority of the clearing thereof was undertaken by the **previous landowner**. The applicant was responsible for clearing approximately 14ha (21% of original extent) of the Sundays Doringveld on Intsomi Farms.

- **Mfuleni (Including Sylvania)**



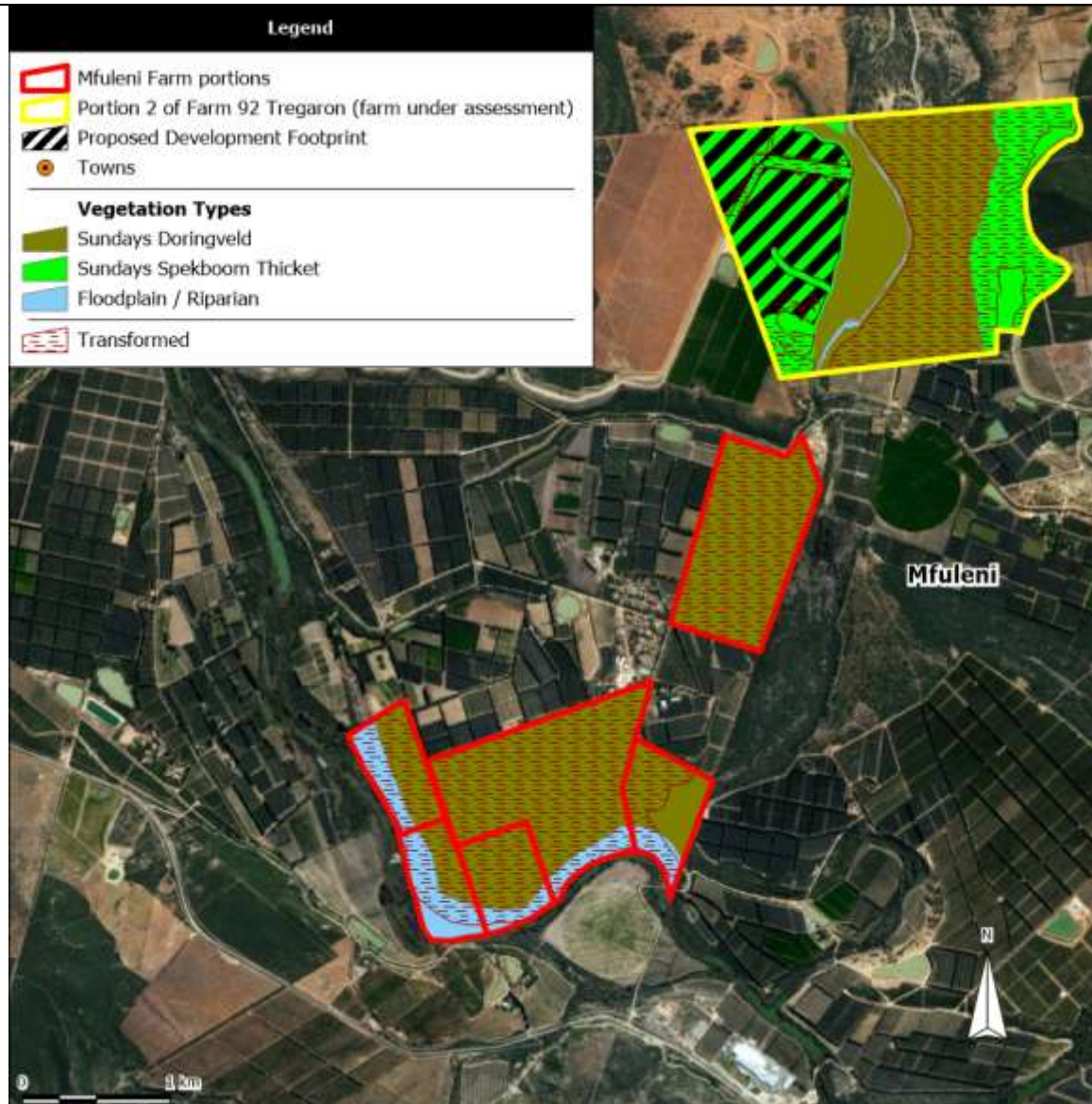
Map 7: Current scenario on the Mfuleni farms (including Sylvania).



Table 6: Extent of vegetation types occurring on the Mfuleni farms (including Sylvania) and levels of transformation (units in hectares).

Vegetation Types	Original Extent	Current Extent	Total Transformed	Total Proposed for Transformation	Total Retained	Percentage of Original Retained	Percentage of Current Retained	STEP Conservation Target	VegMap Conservation Target
Sundays Spekboom Thicket	127	71	56	55	16	13%	23%	18%	19%
Sundays Doringveld	313	45	268	0	45	14%	100%	17%	31% (AAV)
Riparian	37	9	28	0	9	24%	100%	N/A	N/A
<b>Totals</b>	<b>477</b>	<b>125</b>	<b>352</b>	<b>55</b>	<b>70</b>	<b>15%</b>	<b>56%</b>		

The STEP mapping resources identified the vegetation types on the Mfuleni farms as Sundays Spekboom Thicket, Sundays Doringveld and Riparian (Sundays River). The farm under assessment, known as Sylvania, forms part of this collection of farms, known as Mfuleni, for the purposes of this assessment. The conservation targets for Sundays Spekboom Thicket and Sundays Doringveld are not met on these properties when based on the original extent of the respective vegetation types. However, the targets are met for these vegetation types based on the current extent thereof.



Map 7: Current scenario on the Mfuleni farms (including Sylvania). The proposed development footprint is indicated using black striping.

Table 7 below indicates the scenario on the farm known as Sylvania (Portion 2 of Farm 92) which is the subject of this assessment.

*Table 7: Extent of vegetation types occurring on Sylvania and levels of transformation (units in hectares).*

Vegetation Type	Original Extent	Current Extent	Proposed for transformation	Proposed for conservation	Percentage of Current extent to be retained	STEP Conservation Target	VegMap Conservation Target
Sundays Doringveld	118	34	0	34	100%	31%	31% (AAV)
Sundays Spekboom Thicket	127	71	55 <sup>3</sup>	16	23%	18%	19%
Riparian	2	2	0	2	100%	N/A	N/A
<b>Totals</b>	<b>247</b>	<b>107</b>	<b>0</b>	<b>52</b>	<b>21%</b>		

Based on the findings of the vegetation specialist, the vegetation types which occur on the farm under assessment are Sundays Doringveld, Sundays Spekboom Thicket and Riparian vegetation associated with the Wit River which bisects the farm. No Sundays Doringveld is proposed to be transformed on the farm. Thus, 100% of the current extent is proposed to be retained on the farm. Approximately 23% (~16ha) of the current extent of the Sundays Thicket which occurs on Sylvania is proposed to be retained. Therefore, the respective conservation targets can be met on Sylvania.

<sup>3</sup> Approximately 10ha of the area proposed for transformation has been modified (transformed) from Sundays Spekboom Thicket (SST). Therefore, while ~65ha of indigenous vegetation is proposed for transformation, only 55ha of SST has been indicated as proposed for transformation.