Western Cape Government

FOR YOU

Department of Environmental Affairs and Development Planning

Spatial Development Framework Viewer

Directorates: Spatial Planning, SIM and DPIM&R

22 June 2023

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30 min

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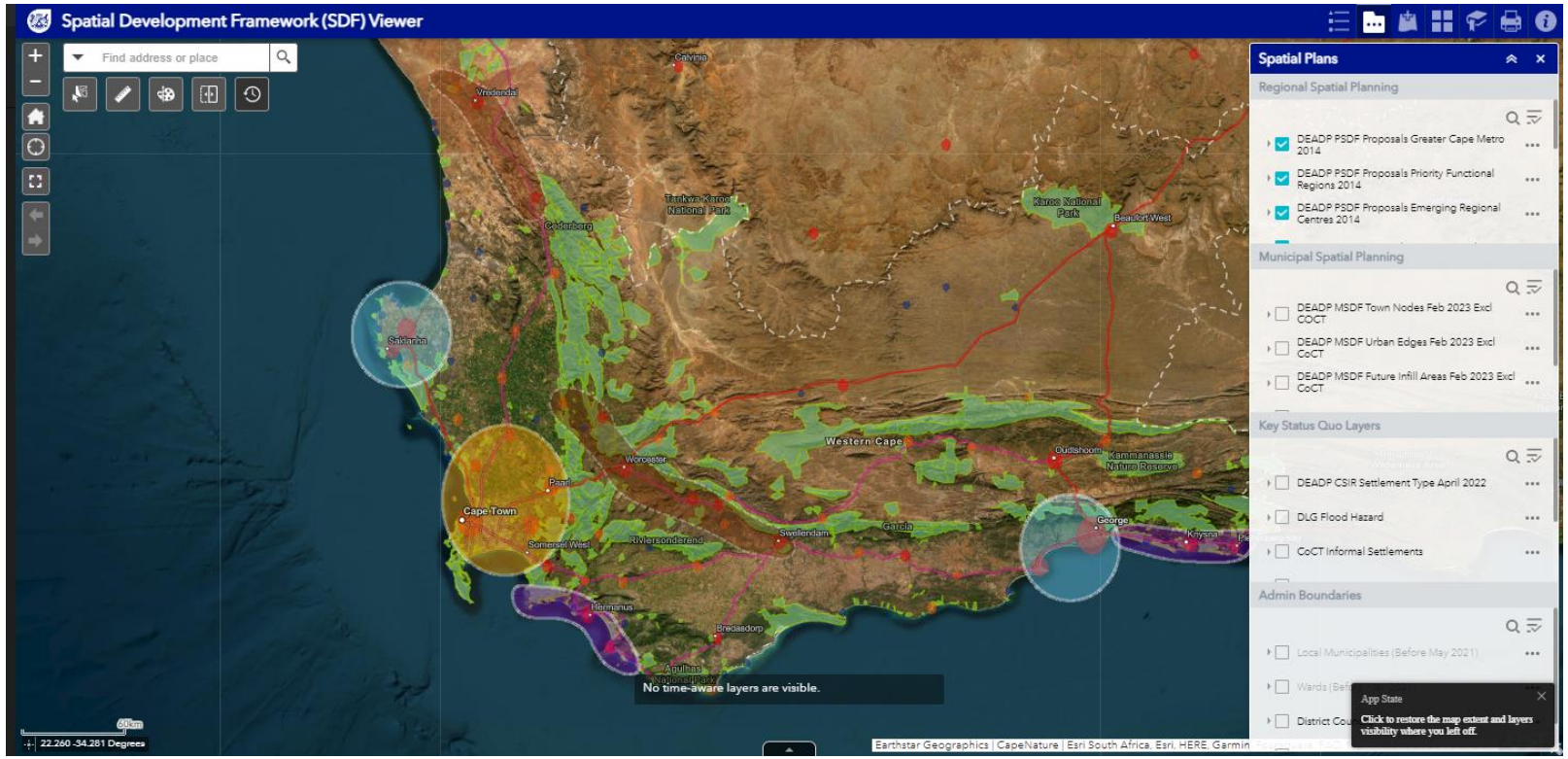
30 min

1. INTRODUCTION

1.1 Background

- SDF Viewer developed as a collaboration between DEA&DP Spatial Planning, SIM and DPIM&R.

- In 2021, the Spatial Planning Directorate initiated and applied through DEA&DP SIM to DoTP to host its own SDF Viewer on the Western Cape Government Living Atlas (now Portal).



1.2 Spatial Planning Directorate

DEA&DP Environmental Affairs and Development Planning

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Spatial Planning

ABOUT US:

The Directorate Spatial Planning, provides advice and support to the public, municipalities, organs of state and the private sector on Spatial Planning and Land Use Management matters.

Spatial Planning is a strategic process that seeks to organise how the economy, society, and the built environment operate in space, whilst also seeking to ensure the protection, restoration and management of the natural environment, underpinned by evidence-based and normative town and regional planning approaches.

Spatial Planning seeks to:

- ensure that long-term forward-planning is carried out at a municipal, regional and provincial scale;
- drive the national and provincial spatial transformation and policy agenda as it relates to the spatial organisation of activities;
- develop and implement guidelines and tools to ensure spatial transformation;
- develop Spatial Development Frameworks (SDF) that have the desired effect on spatial targeting, spatial alignment and priority spending; and
- ensure that the spatial priorities identified in the SDFs are reflected in Integrated Development Plans (IDP's).

OUR SERVICES:

- Develop spatial planning policies, guidelines, manuals and practice notes to guide the public, municipalities, provincial departments and organs of state in undertaking spatial planning and land use management in the Western Cape;
- Assist, support and monitor municipalities in developing and implementing their Spatial Development Framework's or any spatial planning policy documents;
- Ensure that the quality and relevance of spatial planning and land use management in the Province is strongly rooted in an evidence-based, planning-led, infrastructure enabling approach;
- Assist with provincial and municipal spatial policy formulation, implementation and monitoring, as well as mainstreaming spatial planning in all sector planning initiatives in the province;
- Lead the development and review of provincial, regional and theme-specific spatial plans;
- Assist with the administration and implementation of spatial planning in terms of SPLUMA, LUPA and municipal planning bylaws;
- Assist with monitoring, evaluating and reporting on the performance of municipalities in the execution of their municipal spatial planning function;
- Provide spatial planning comment and input on land use, development and environmental applications.;
- Implementation and mainstream the Provincial Spatial Development Framework;
- Engage with the national sphere of government as it pertains to national spatial planning initiatives; and
- Assist municipalities in their growth management and scenario planning.

1.3 DPIM&R & SIM

Development Planning Intelligence Management and Research

About Us:

The Directorate was established on 1 April 2015, as a result of an internal departmental restructuring process which responded to the implementation of a new planning regime, underpinned by newly promulgated planning legislation (LUPA and SPLUMA).

Our main business is to:

- Ensure the effective management and implementation of a development planning intelligence management and research function.
- Collaborate with other partners and stakeholders to coordinate provincial land use policy formulation, review and implementation.
- Build and maintain an intelligence / information HUB that will assist stakeholders with informed decision making and planning.

SERVICES

Manage Development Planning Intelligence

Build capacity of municipalities & other spheres of government by:

- Identifying, collecting, storing, packaging & sharing of relevant development planning data & information.
- Coordinating the spatial depiction of relevant development planning data & information.

Conduct Development Planning Research

Define and lead a common development planning research agenda with stakeholders.

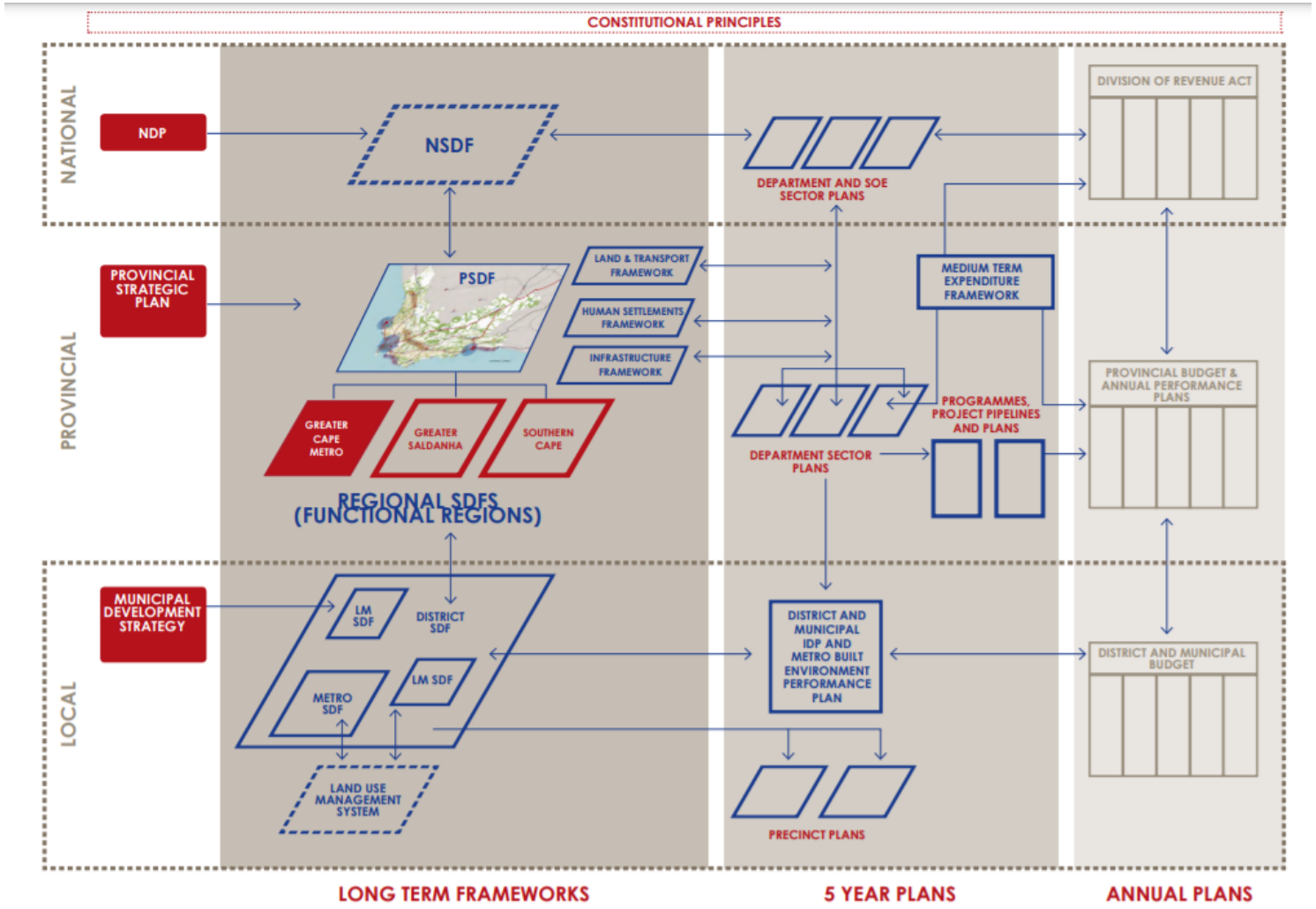
Coordinate Land Use Planning Policy

- Monitor local municipalities' ability to perform their land use planning functions effectively.
- Lead & coordinate the development, review and implementation of relevant provincial land use planning policy

2. SPATIAL DATA & SDF’s

2.1 What are Spatial Development Frameworks (SDF)?

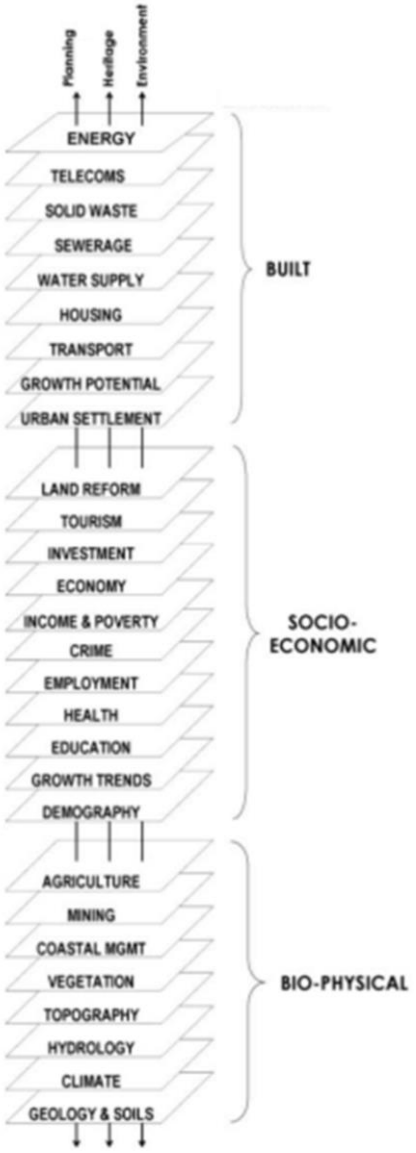
- SPLUMA, MSA & LUPA, SDF's are forward planning documents that spatially indicate the long-term growth & development path of the municipality and are a core component of the municipality's IDP.
- SDF's co-ordinate the spatial implications of all strategic sector plans (engineering, housing, transport etc.).
- They facilitate intergovernmental priority setting, spatial targeting and spatial alignment and coordination of public investment.
- Informs land use management and addresses the impact of apartheid spatial forms.



2.2 Defining SDF Spatial Data

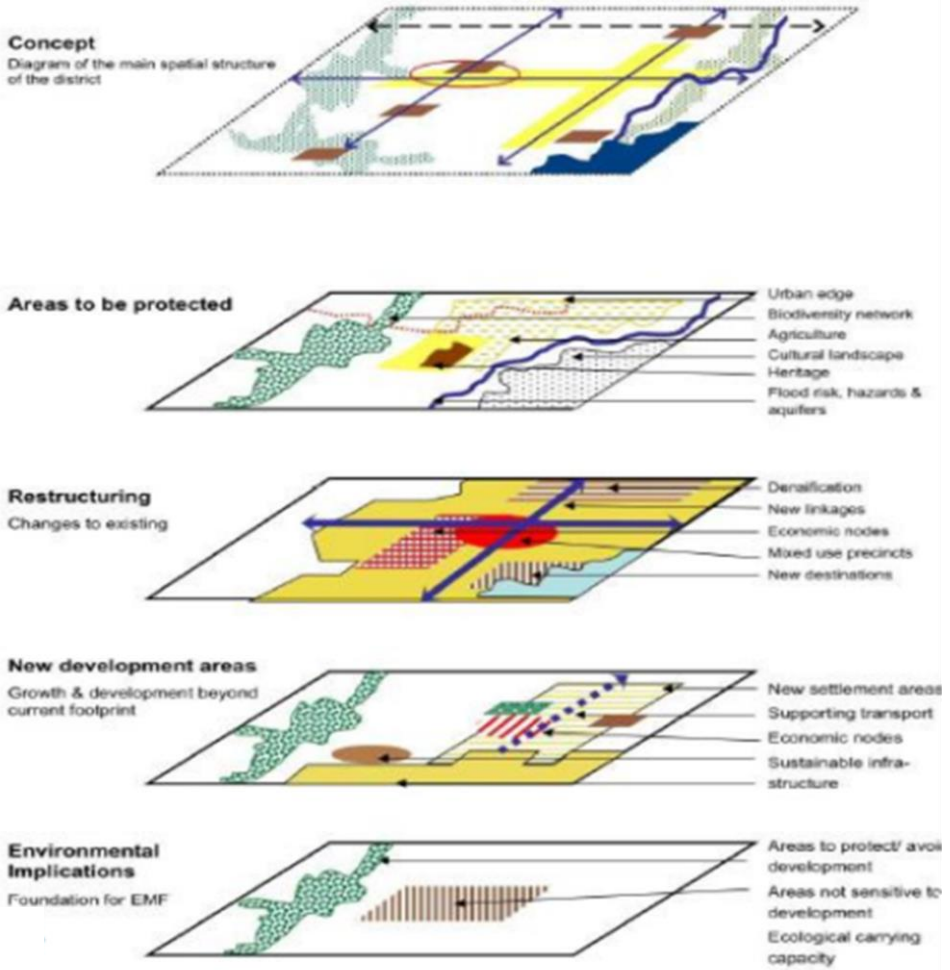
STATUS QUO REPORT

- Where data requests take place
- Synthesize relations, tensions and trends between policy related data layers

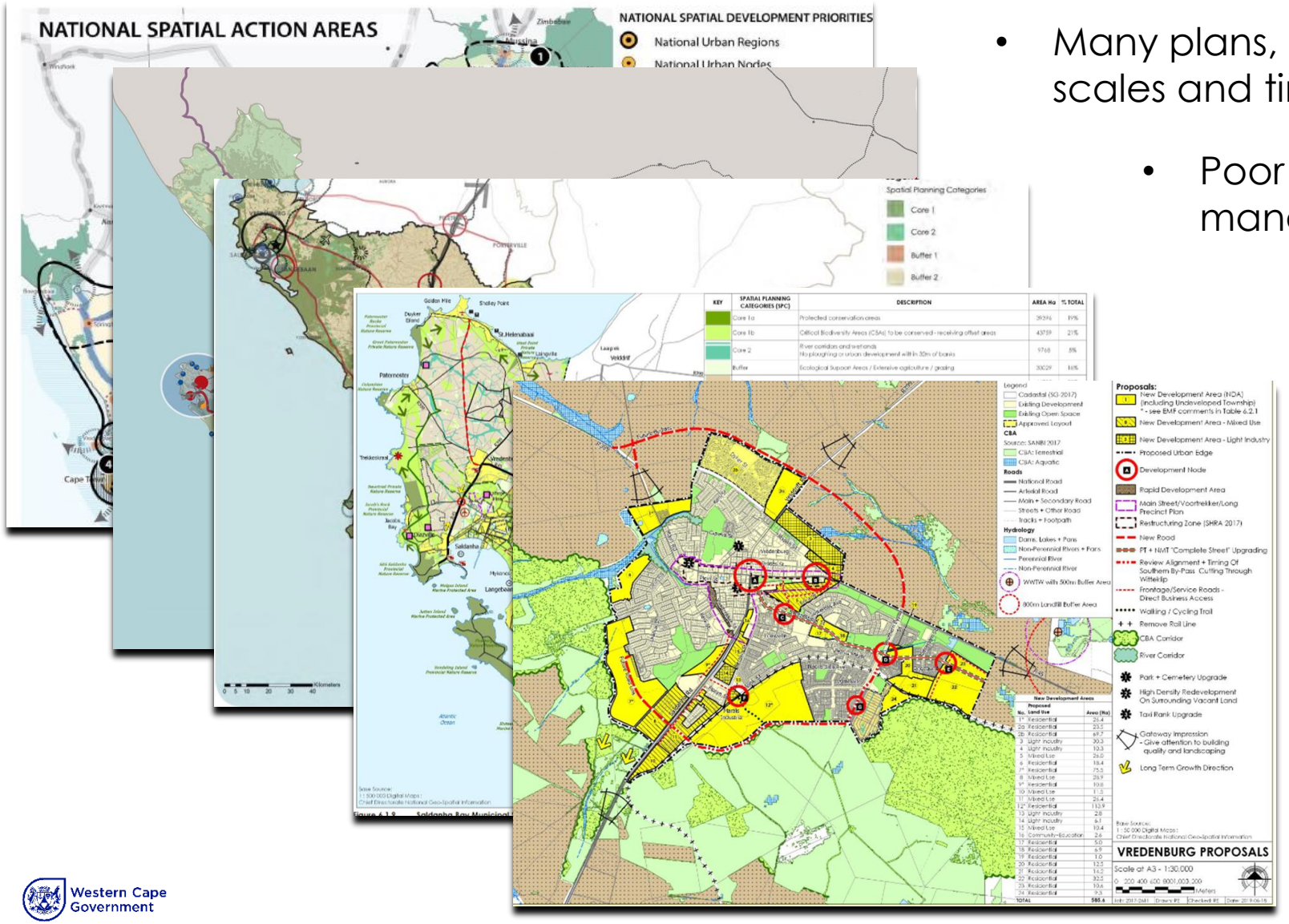


CONCEPTUAL FRAMEWORK

- Spatial vision
- New Spatial Data Proposals generated
- Structuring elements
- SPLUMA 21(d) content requirements



2.3 SDF's and Spatial Data Issues



- Many plans, saying varying things at differing scales and time periods
  - Poor spatial data quality/ management during SDF process
- Status quo data quickly being outdated in 'static' document format
  - Finding and going through SDF's in document format can be arduous.
  - SDF's take long to develop, and data quickly becomes outdated.

2.4 Common Spatial Data Among MSDF's

COMMON PROPOSAL LAYERS

1. Urban Edges
2. Nodes and corridors
3. Future infill areas

+ more

COMMON SDF STATUS QUO LAYERS

1. WCBSP
2. Restructuring Zones
3. Hazard layers
4. PHSHDA

+ many more

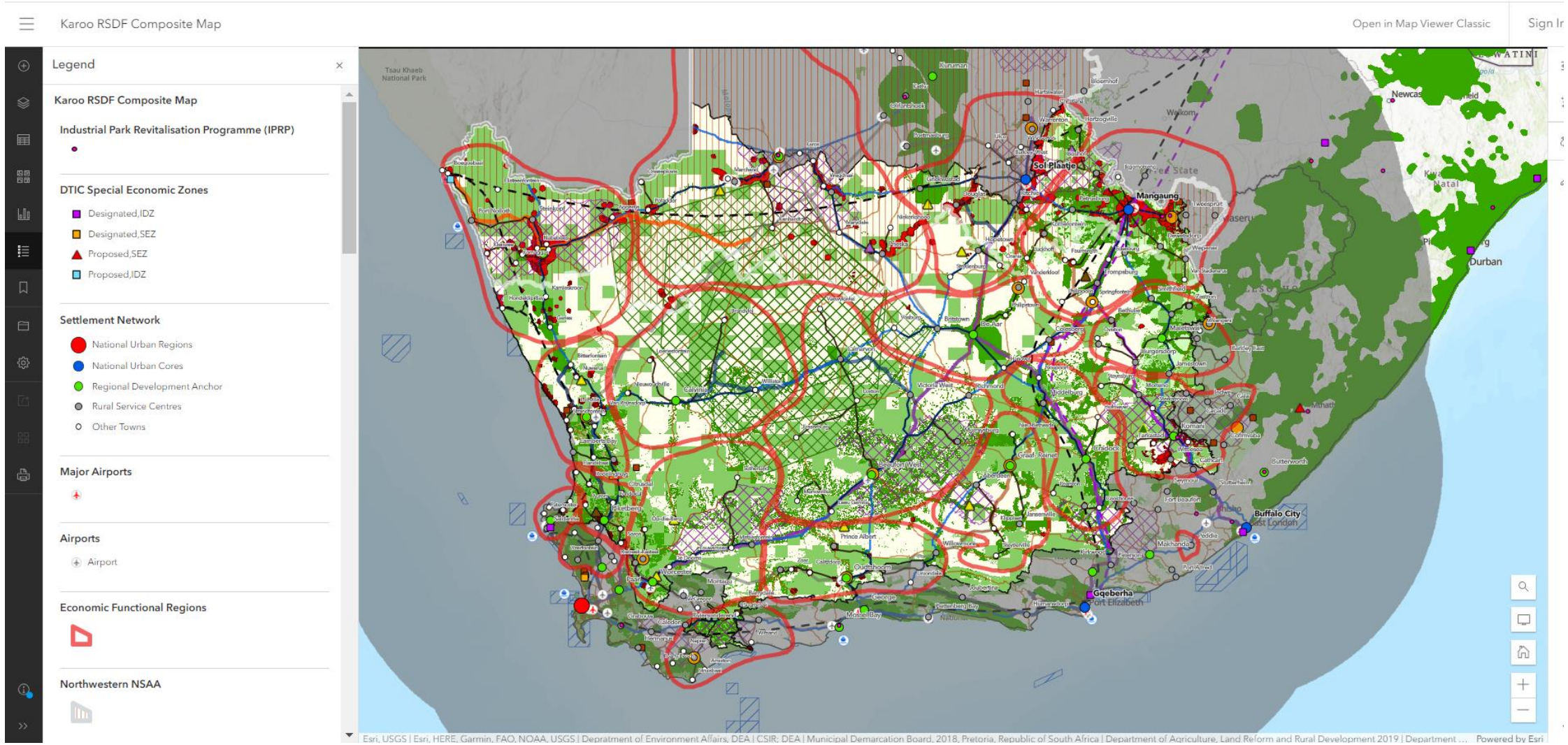
3. CONSOLIDATING SDF DATA & BUILDING AND BUILDING A MAP VIEWER

3.1 Business Case for SDF Viewers

Outside of the CoCT metro, we needed the following:

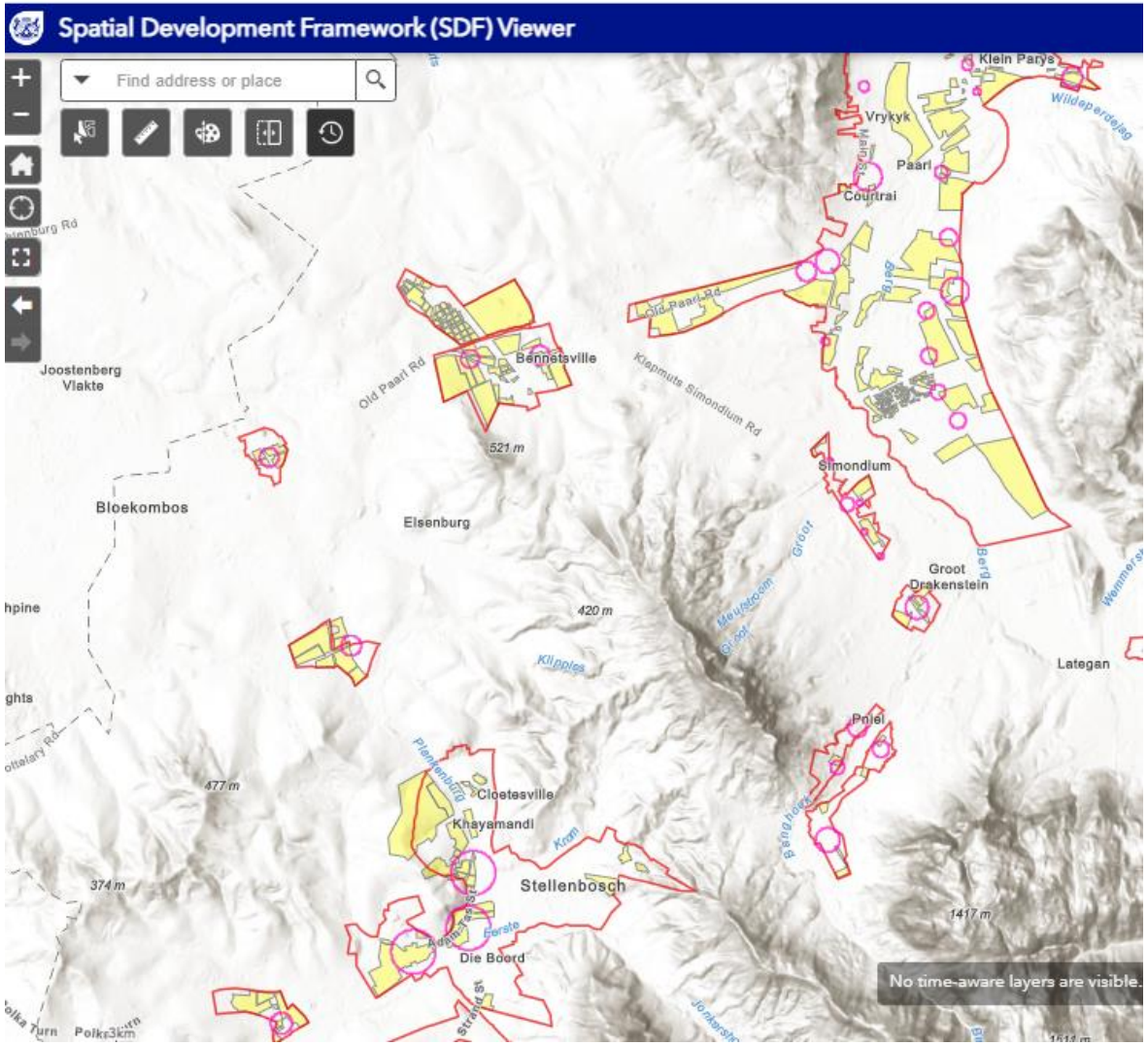
- Evidence-Based Planning for SDF's
- The digitalization of SDF's into a tool to assist our spatial planning mandates.
- A map viewer for SDF proposals to be overlaid with each other and underlaid by available status quo data.
- A tool to explore and engage with SDF data in a more intuitive, immersive and inter scalar manner that's supports collaborative decision-making.
- A system of tracking and monitoring SDF proposals data and ensuring that data quality matures.
- Leverage the province's geo spatial infrastructure in support of struggling municipalities.

3.2 Example of Karoo RSDF Viewer



3.3 Rationalizing & Consolidating MSDF Spatial Data

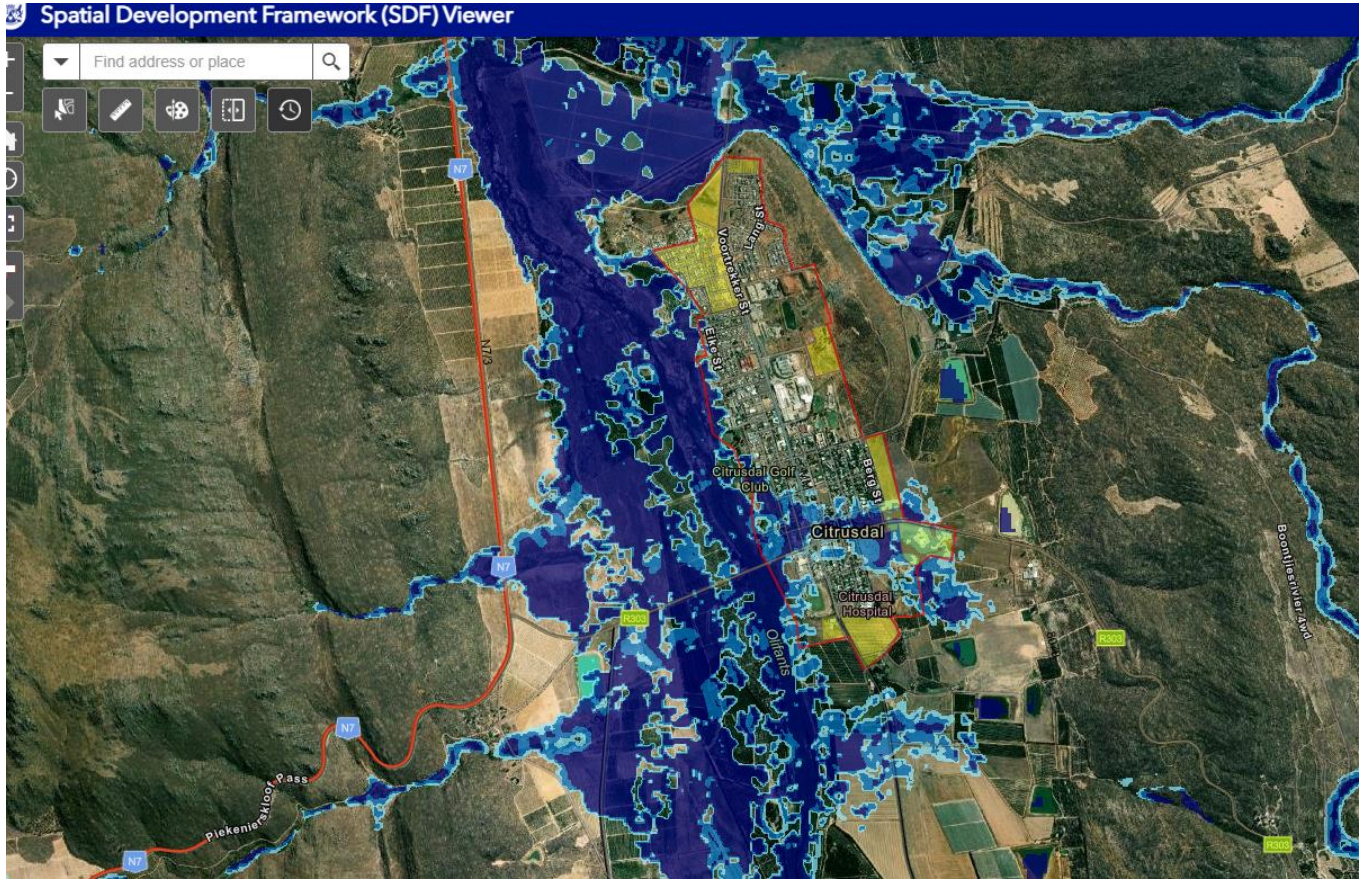
- MSDF spatial datasets consolidated provincial wide: ***Urban Edges***, ***Town Nodes***, ***Future Infill Areas*** – more in development.
- Centralized into a single source dataset validated against the pre-June 2022 council approved MSDF document.
- New, incorrect or missing data requested and integrated into source shapefile
- Unavailable data georeferenced and sourced accordingly.



3.4 Specific Insights, Capabilities & Future Opportunities

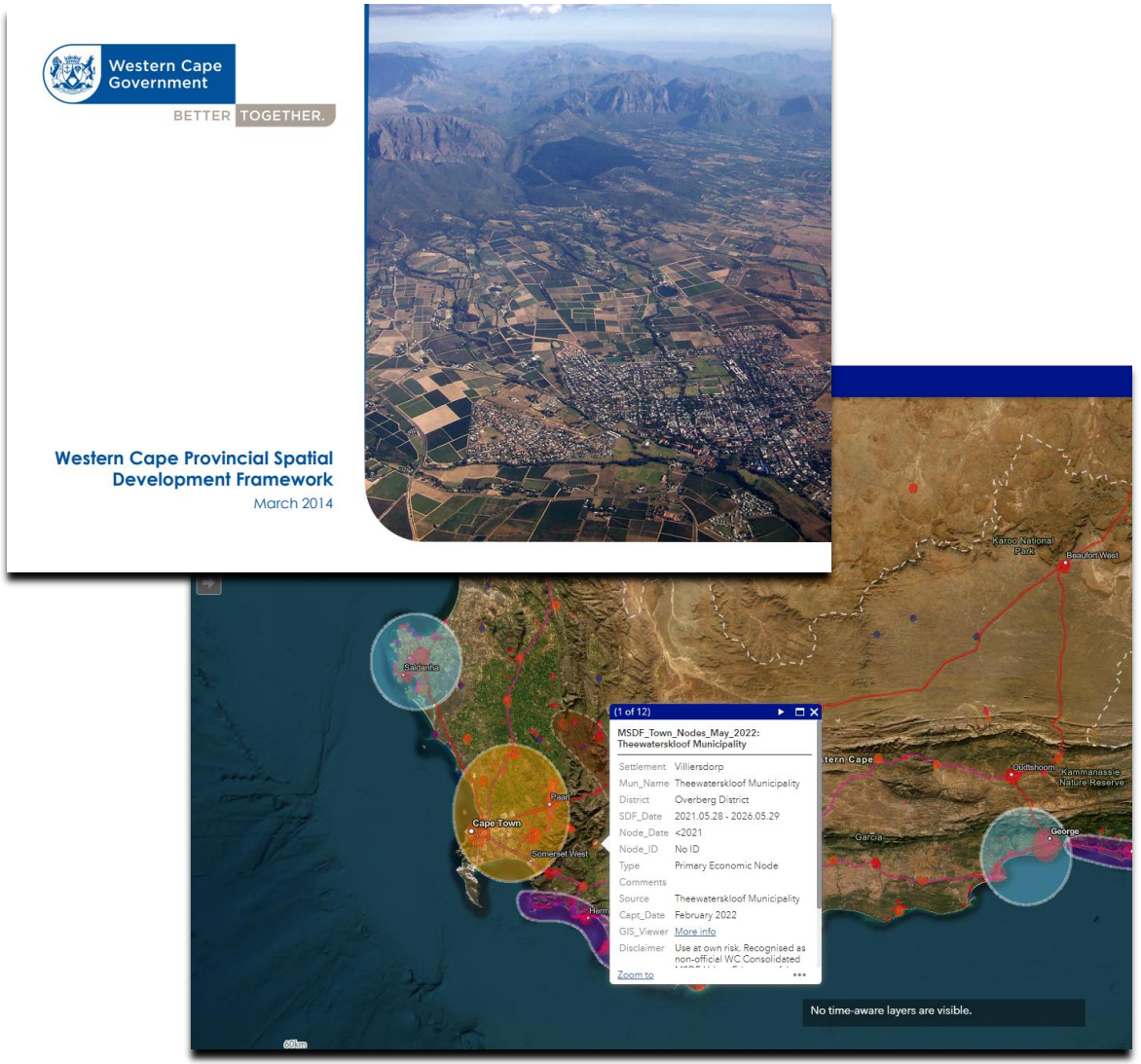
Some specific insights that can be derived from this tool:

- Engagement with spatial data.
- Alignment of plans.
- Risk detection.
- Monitoring urban expansion and encroachment.
- Enhanced understandings of urban and rural planning.
- Reveal spatial disparities and areas requiring intervention.
- Identify strategic locations of need.
- Understanding distribution and hierarchy of social facilities and services.



3.5 Target Audience, Limitations and Access

- The viewer does not replace the existing SDF, it's a platform to direct colleagues to the SDF and to simultaneously engage with the data
- MSDF Data is Use at own risk. Recognized as non-official WC Consolidated. If in conflict with council approved MSDF, the MSDF will supersede this
- Target users are province and municipal colleagues (with trusted passwords) to assist and expedite the carrying out their functional planning mandates.
- Applicable viewing scales are relevant, specifically with urban edges.



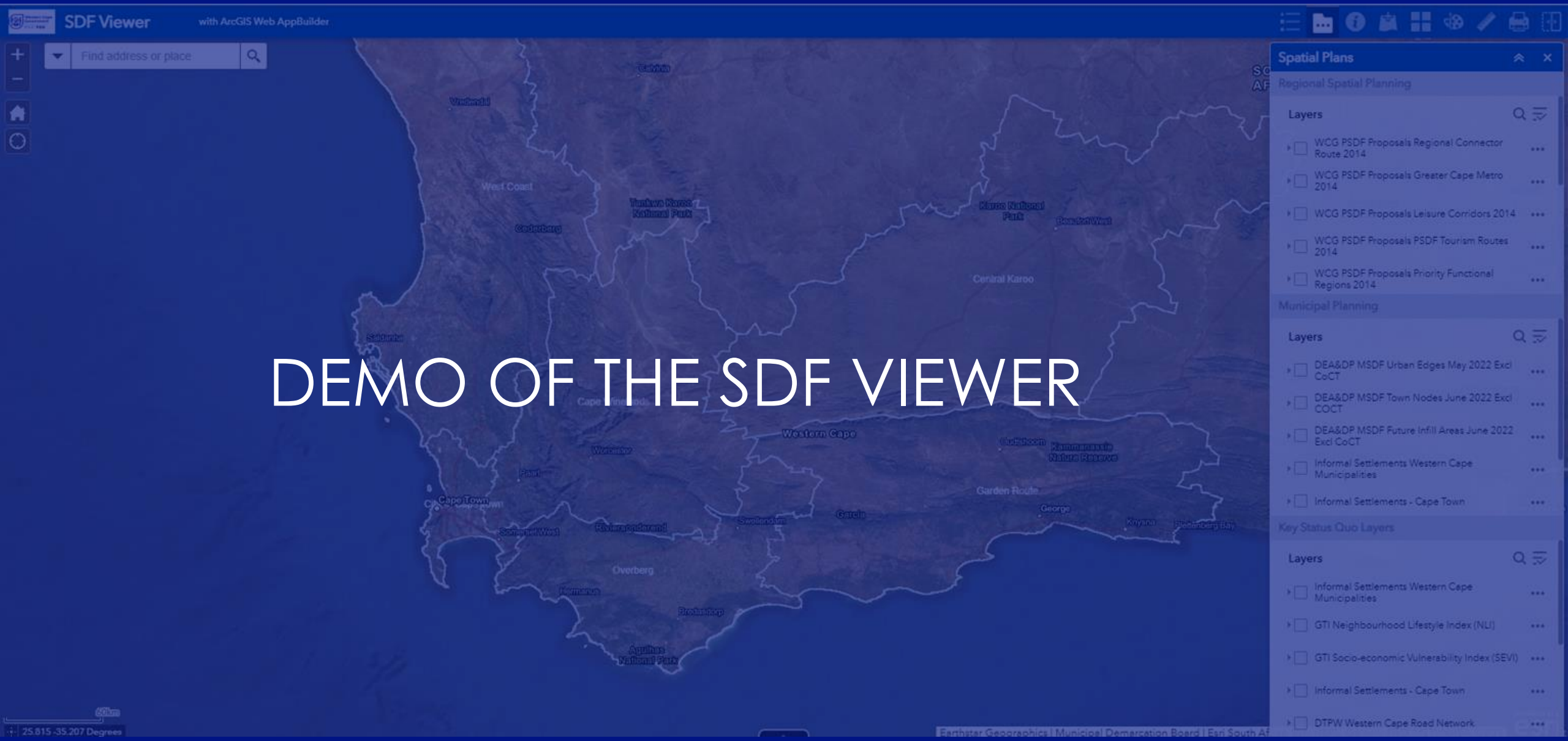
3.6 Anticipated Questions

- **Can I get access to the viewer?** Not currently, its DEA&DP internal. DEA&DP internal password. Viewer is internal until such a time that the data and data governance matures to the point where it can become external. However, the MSDF spatial data is available on request and this is accompanied by metadata/data agreements. SIM keeps a record of who the data is sent to and their intended use. Annual updates will be shared with this contact list. We're about to embark on the 2023 update. Originally SIM applied to data owners on behalf of DEA&DP.

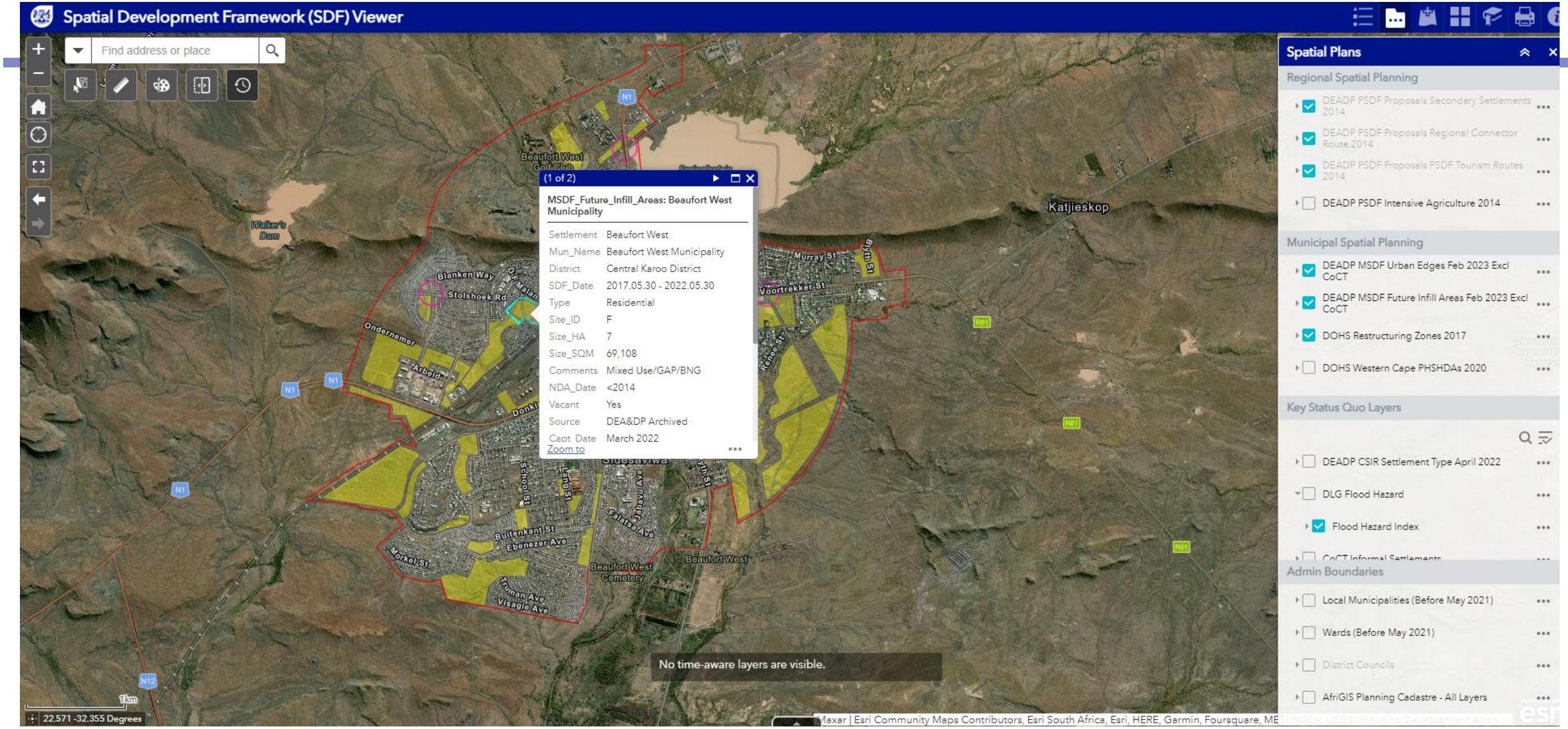
- **Can I add any of my own (or other) data to the viewer?** Yes, this functionality has been enabled.

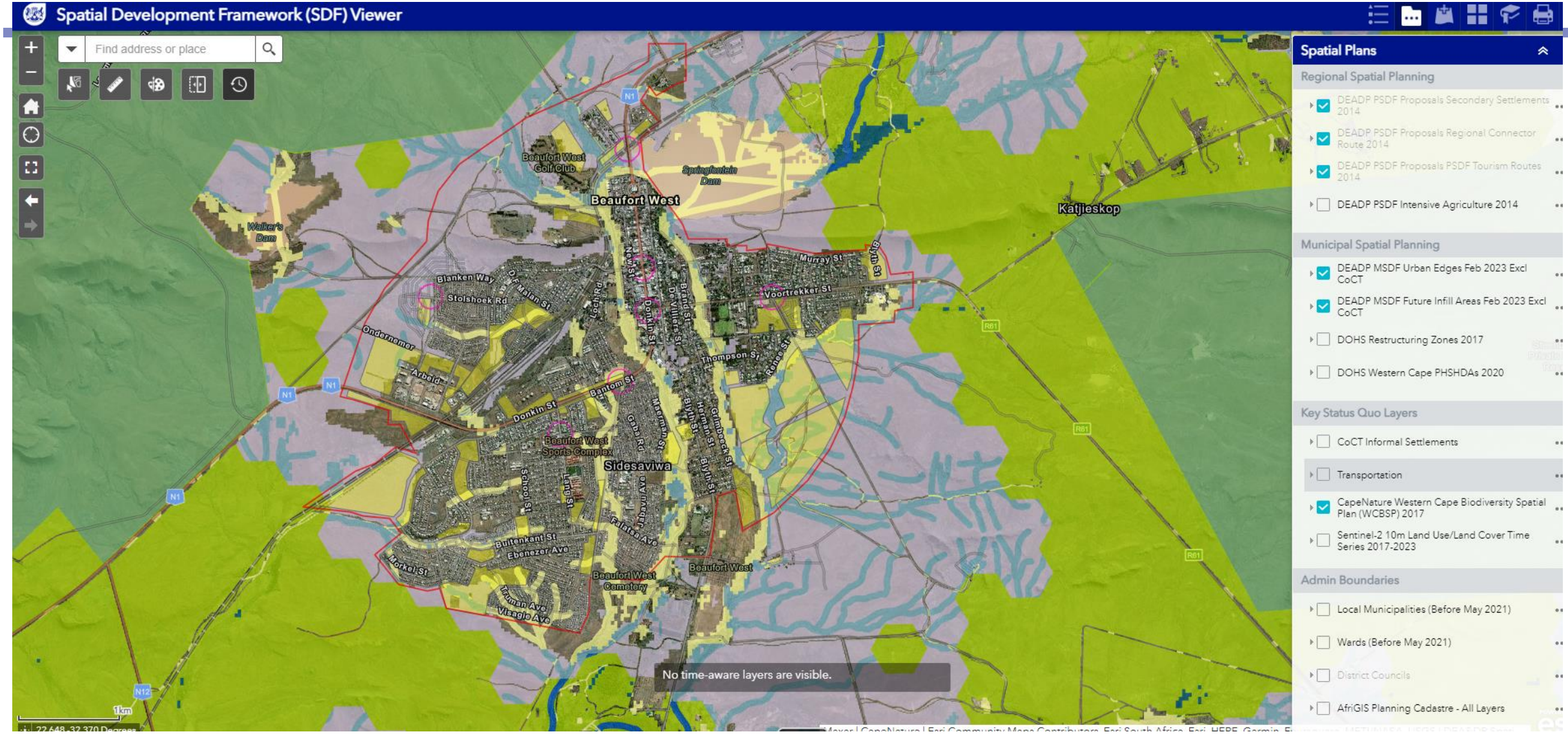
- **When is the MSDF data and viewer updated?** Annually and the data sharing / governance is managed via SIM

- **Is a guide available for the viewer? Will there be training?** Yes, we are in the process of doing this.



DEMO OF THE SDF VIEWER


Spatial Development Framework (SDF) Viewer
Find address or place
(1 of 2)
MSDF_Future_Infill_Areas: Beaufort West Municipality
Settlement Beaufort West
Mun_Name Beaufort West Municipality
District Central Karoo District
SDF_Date 2017.05.30 - 2022.05.30
Type Residential
Site_ID F
Size_HA 7
Size_SQM 69,108
Comments Mixed Use/GAP/BNG
NDA_Date <2014
Vacant Yes
Source DEA&DP Archived
Capt Date March 2022
Zoom to
Spatial Plans
Regional Spatial Planning
DEADP PSDF Proposals Secondary Settlements 2014
DEADP PSDF Proposals Regional Connector Route 2014
DEADP PSDF Proposals PSDF Tourism Routes 2014
DEADP PSDF Intensive Agriculture 2014
Municipal Spatial Planning
DEADP MSDF Urban Edges Feb 2023 Excl CoCT
DEADP MSDF Future Infill Areas Feb 2023 Excl CoCT
DOHS Restructuring Zones 2017
DOHS Western Cape PHSHDAs 2020
Key Status Quo Layers
DEADP CSIR Settlement Type April 2022
DLG Flood Hazard
Flood Hazard Index
Admin Boundaries
Local Municipalities (Before May 2021)
Wards (Before May 2021)
District Councils
AfriGIS Planning Cadastre - All Layers
No time-aware layers are visible.
Beaufort West Golf Club
Walker's Dam
Katjieskop
Blanken Way
Stolshoek Rd
Ondernemer
Arbeid
Murray St
Voortrekker St
Rénee St
Beaufort West Cemetery
Beaufort West
Buitenkant St
Ebenezer Ave
Morkel St
Truman Ave
Visagie Ave
School St
Lang St
Falatsa Ave
N1
N12
R61
1km
22.571 -32.355 Degrees
Maxar | Esri Community Maps Contributors, Esri South Africa, Esri, HERE, Garmin, Foursquare, ME



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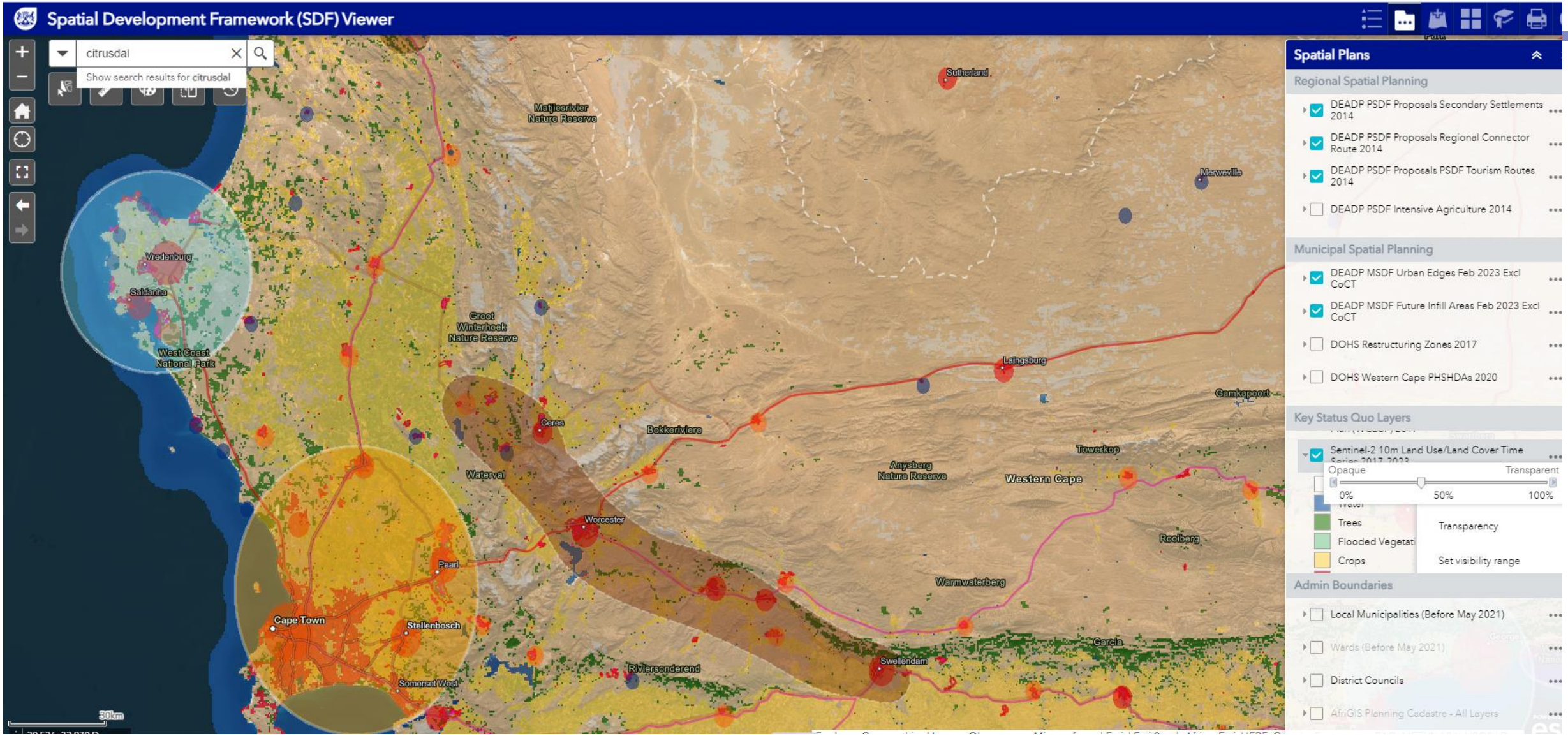
Spatial Development Framework (SDF) Viewer
citrusdal
Show search results for citrusdal
Spatial Plans
Regional Spatial Planning
DEADP PSDF Proposals Secondary Settlements 2014
DEADP PSDF Proposals Regional Connector Route 2014
DEADP PSDF Proposals PSDF Tourism Routes 2014
DEADP PSDF Intensive Agriculture 2014
Municipal Spatial Planning
DEADP MSDF Urban Edges Feb 2023 Excl CoCT
DEADP MSDF Future Infill Areas Feb 2023 Excl CoCT
DOHS Restructuring Zones 2017
DOHS Western Cape PHSHDAs 2020
Key Status Quo Layers
Sentinel-2 10m Land Use/Land Cover Time
Opaque
Transparent
0%
50%
100%
Trees
Flooded Vegetati
Crops
Transparency
Set visibility range
Admin Boundaries
Local Municipalities (Before May 2021)
Wards (Before May 2021)
District Councils
AfriGIS Planning Cadastre - All Layers
Sutherland
Matjiesrivier Nature Reserve
Merweville
Vredenburg
Saldanha
West Coast National Park
Groot Winterhoek Nature Reserve
Laingsburg
Gamkapoort
Ceres
Bokkeriviere
Towerkop
Waterval
Anysberg Nature Reserve
Western Cape
Worcester
Rooiberg
Paarl
Warmwaterberg
Cape Town
Stellenbosch
Garcia
Riviersonderend
Swellendam
Somerset West
30km

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