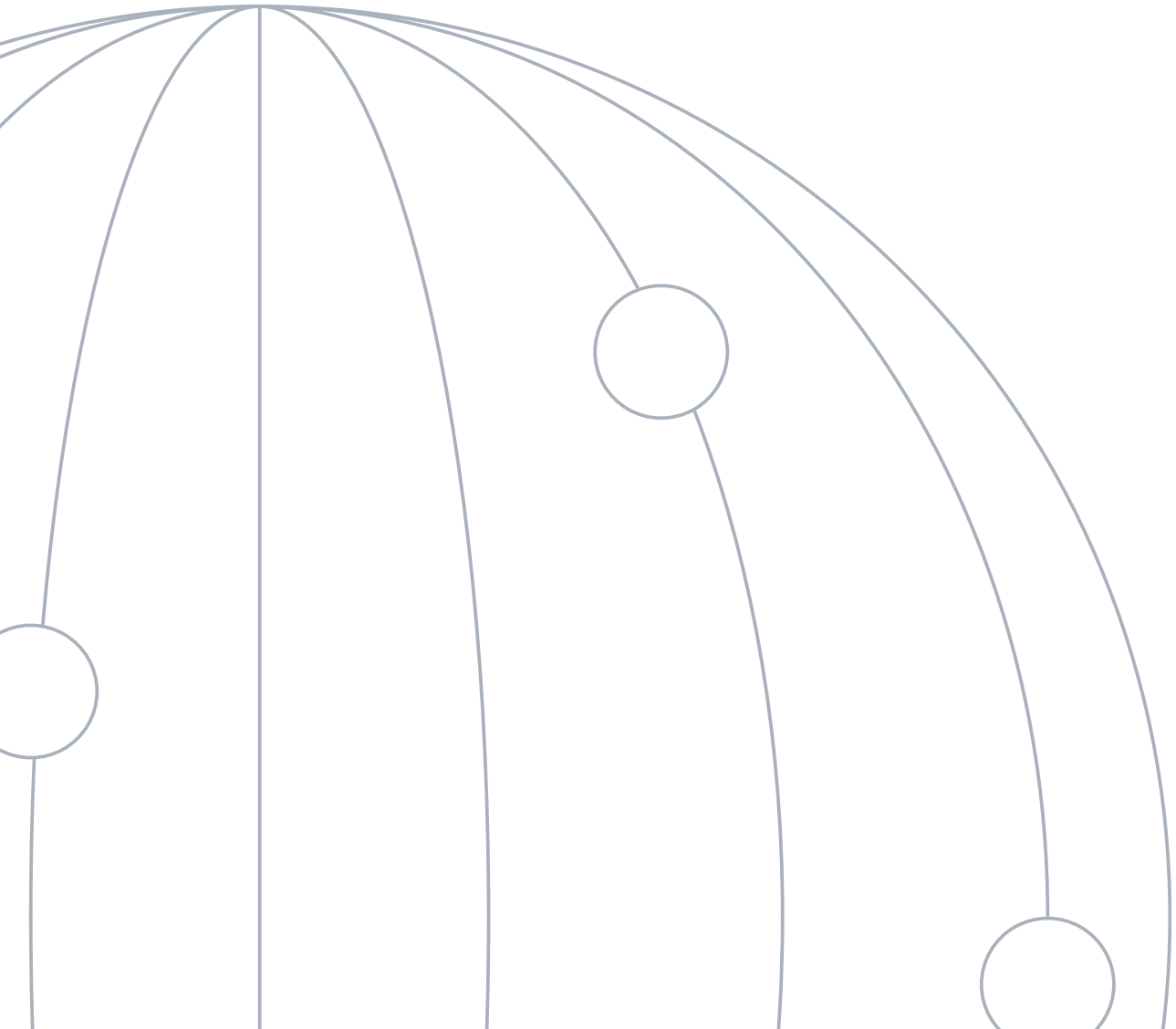
VIDA vdpResearch

Biodiversity



Franz-Joseph-Strasse 10, 80801 München

Latitude, Longitude 48.1577, 11.5825 **Asset type** Multi-story apartment building / office building - 3-7 floors **Terrain elevation** 519.89 m above sea level

Protected areas

Protected areas aregeographical spaces that are managed to conserve nature and its cultural values. They are accessed from the World Database on Protected Areas (WDPA). Developing and/or owning assets in or next to protected areas can pose legal and reputational risks.

Is inside a protected area 0

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Protected areas within 1.0 km 2

Isarauen (mit ausführlicher Beschreibung der Schutzgebietsflächen zwischen der Stadtgrenze Oberföhring und dem St.-Quirin-Platz)

(Landscape Protection Area) Hirschau und Obere Isarau (Landscape Protection Area)

Protected areas within 1.0 - 2.5 km 0

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Protected areas within 2.5 - 5 km 6

Oberes Isartal (Special Areas of Conservation (Habitats Directive)) Hirschgarten (Landscape Protection Area) Nymphenburg

(Landscape Protection Area) Nymphenburger Park mit Allee und Kapuzinerhölzl (Special Areas of Conservation (Habitats Directive))

Verordnung des Bezirks Oberbayern über den Schutz von Landschaftsteilen entlang der Isar in den Landkreisen

Bad-Tölz-Wolfratshausen, München, Freising und Erding als LSG (Landscape Protection Area) Isarauen von Unterföhring bis Landshut

(Special Areas of Conservation (Habitats Directive))

Key biodiversity areas

Key biodiversity areas are sites contributing significantly to the global persistence of biodiversity in terrestrial, freshwater and marine ecosystems. Interfering with these areas may result in legal and reputational risks.

Is inside a key biodiversity area 0

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Key biodiversity areas within 1.0 km 0

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Key biodiversity areas within 1.0 - 2.5 km 0

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Key biodiversity areas within 2.5 - 5 km 0

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Threatened species

The International Union for Conservation of Nature (IUCN) Red List tracks threatened species globally. If threatened or endangered species (animals and plants) are close by, a deeper analysis may be necessary to avoid legal or reputational risks. An area of 10km around the asset is considered.

Critically endangered 0

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Endangered 0

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Vulnerable 0

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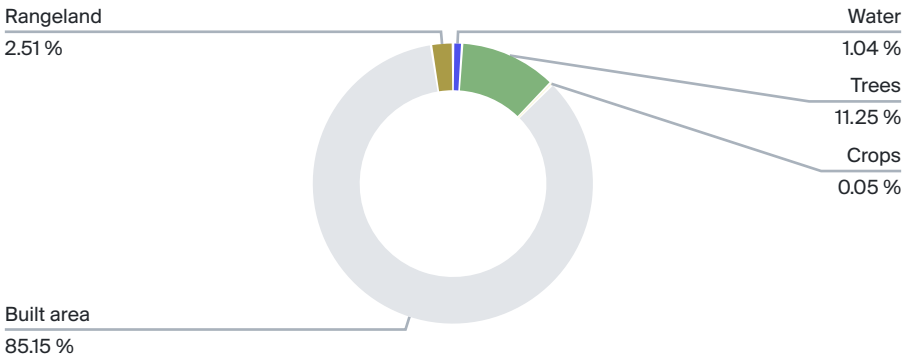
Deforestation

Deforestation describes the loss of trees in an area. It can stem from a variety of human activities and often results in a loss of biodiversity which poses legal and reputational risks. The indicator refers to the amount of square meters lost within a radius of 1.0 km around the site.

Value (m^2)	Timeframe
0	2017-2023

Land cover and land use

Land cover maps are derived from up-to-date satellite imagery and offer insights into a wide range of topics such as deforestation, food security, human activity and conservation efforts. The numbers below show the distribution of land cover classes within a radius of 1.0 km around the site.



Available blue water

Available blue water is renewable freshwater in a sub-basin, excluding upstream consumption and artificial sources. If insufficient for people and nature, mitigation may be needed. Data covers three future years and common SSPs.

2030		2050		2080	
SSP1-1.9	SSP5-8.5	SSP1-1.9	SSP5-8.5	SSP1-1.9	SSP5-8.5
178 cm/year	179 cm/year	162 cm/year	166 cm/year	172 cm/year	151 cm/year

The classification below assesses blue water availability, though the asset may not be vulnerable to shortages.

- Low risk: >1000 cm/year
- Medium-Low risk: 300 - 1000 cm/year
- Medium risk: 100 - 300 cm/year
- Medium-High risk: 30 - 100 cm/year
- High risk: 10 - 30 cm/year
- Extreme risk: 3 - 10 cm/year

Drought

The drought risk indicator assesses likely drought locations, exposure of people and assets, and their vulnerability. Based on Carrão et al. (2016), high drought risk may signal future biodiversity and biomass decline without human intervention.

Value	Timeframe
0.50	2000-2014

The classification below provides a scale to assess the drought risk:

- Low risk: 0-0.2
- Medium-Low risk: 0.2 - 0.4
- Medium risk: 0.4 - 0.6
- Medium-High risk: 0.6 - 0.8
- High risk: 0.8 - 1

Air quality

The concentration of PM2.5 is a key indicator for air quality. It refers to tiny particles less than 2.5 micrometers in diameter. A key source of the particles is burning of fuels such as gasoline, coal or wood. Exposure to elevated concentrations pose significant risks to health and biodiversity. The global dataset is created by Shen et al. and is based on a variety of satellite and on-ground data.

Average annual PM2.5 concentration (µg/m^3)	Timeframe
9.4	2022

Here are two widely used limits for yearly averaged PM2.5 concentrations:

- The World Health Organization's (WHO) annual limit for PM2.5 is 5 µg/m^3.
- The European Union's (EU) annual limit for PM2.5 is currently 25 µg/m^3.

Number of buildings

The number of buildings within a radius of 2.5km. The number gives an indication of the density of human interaction in this area.

Value
5789

Sources

Protected areas, Key biodiversity areas, Threatened species

- Protected Area, Key Biodiversity Area, and Species data reproduced and incorporated under licence from the Integrated Biodiversity Assessment Tool (IBAT) (https://www.ibat-alliance.org/). IBAT is provided by BirdLife International, Conservation International, IUCN and UNEP-WCMC. Contact ibat@ibat-alliance.org for further Data.

Deforestation

- Hansen, M. C., P. V. Potapov, R. Moore, M. Hancher, S. A. Turubanova, A. Tyukavina, D. Thau, S. V. Stehman, S. J. Goetz, T. R. Loveland, A. Kommareddy, A. Egorov, L. Chini, C. O. Justice, and J. R. G. Townshend. 2013. "High-Resolution Global Maps of 21st-Century Forest Cover Change." Science 342 (15 November): 850-53.10.1126/science.1244693, CC-BY 4.0 licence

Land cover and land use

- Impact Observatory, ESA Sentinel-2, CC-BY 4.0 licence

Available blue water, Drought risk

- Kuzma, S., M.F.P. Bierkens, S. Lakshman, T. Luo, L. Saccoccia, E. H. Sutanudjaja, and R. Van Beek. 2023. "Aqueduct 4.0: Updated decision-relevant global water risk indicators." Technical Note. Washington, DC: World Resources Institute. Available online at: http://doi.org/10.46830/ writn.23.00061. CC-BY 4.0 licence
- Carrao, H., G. Naumann, and P. Barbosa. 2016. “Mapping Global Patterns of Drought Risk: An Empirical Framework Based on Sub-national Estimates of Hazard, Exposure and Vulnerability.” Global Environmental Change 39 (July): 108–24. doi: 10.1016/ j.gloenv- cha.2016.04.012

Air quality

- Shen, S. Li, C. van Donkelaar, A. Jacobs, N. Wang, C. Martin, R. V.:Enhancing Global Estimation of Fine Particulate Matter Concentrations by Including Geophysical a Priori Information in Deep Learning. (2024)ACS ES&T Air. DOI: 10.1021/ acsestair.3c00054

Number of buildings within 2.5 km

- VIDA.place GmbH (processor), Microsoft and Google (data providers), CC-BY 4.0 licence

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