

This country profile was compiled by the OECD Secretariat and reflects information available as of March 2015. Further information and analysis can be found in the publication: OECD (2015) [Water Resources Allocation: Sharing Risks and Opportunities](#), OECD Studies on Water, OECD Publishing. Country profiles for all of the 37 allocation regimes in 27 OECD and key partner countries surveyed for this project are available for download at: <http://www.oecd.org/fr/publications/water-resources-allocation-9789264229631-en.htm>.

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Overview and highlights

Water resources in Austria are abundant and far exceed current levels of use. Ground water is privately owned by the owner of the property where it is located, while surface water is mainly publicly owned. EU legislation on water quality has advanced a reform of allocation system¹.

Key characteristics of the prevailing allocation regime in Austria include:

- Only about 3% of available water resources are currently being used;
- There is significant non-consumptive use for hydro power, navigation and net abstractions of surface waters (cooling purposes, industrial uses, etc);
- Limits on consumptive use are defined and linked to the river basin management plan;
- Climate change is addressed through regular scientific investigations. The results are considered in river basin management plans. No major changes with regard to water availability are expected in the mid-term;
- Water entitlements are unbundled from land ownership;
- An entitlement not being used within a given period can expire or be removed;
- Users do not have to pay for abstraction separately, although they have to meet full costs of water services.

¹ Implementation of new EU-Water Framework Directive into Austrian Water Act in 2003, introducing the objective of non-deterioration of the status, defining the good status of surface water bodies and defining the good status of groundwater bodies (available groundwater resource should not be exceeded by long-term annual average rate of abstractions).

Legal and institutional setting for water allocation

Institution	Scale	Main Responsibilities
Federal Ministry of Agriculture, Forestry, Environment and Water Management	National	Primarily, national policy; development and publication of river basin management plans; coordination of provincial planning; guidelines, and, monitoring strategies.
Provincial Government	Provincial/ State/ Regional	Permit for "major" water abstraction uses (abstraction for groundwater and springs >300l/min, from other waters >1.000 l/min, and for water supply of supply units with more than 15.000 inhabitants); monitoring and enforcement; provincial and local planning; and, resource protection for general water supplies (ordinances).
Regional Administration Authority	Provincial/ State/ Regional	Permit for water abstraction uses and protection; permit surveillance; and, environmental inspections.
Municipalities, Water Users Associations	Local (Municipal)	Water supply and drinking water abstraction; protection and ongoing servicing; and, maintenance of water infrastructure.

Legal context for water allocation: Roman/ Statutory Law. Specifically, the [Austrian Water Act \(WRG 1959 idgF\)](#).

Legal definition of ownership of water resources: Ground water is privately owned; "the ownership of the water belongs to the land-owner". The latter, has a specified right of disposal (for domestic and house economic needs) of the water on his property. However, property rights are restricted by need for permits for any abstraction going beyond insignificance.

Surface water is mainly publicly owned; the Austrian Water Act defines all public rivers and lakes, belong to everybody for bathing, bailing and watering. Every other use requires a permit. Only springs and their discharges up to the point where they discharge in public surface waters belong to the land-owner, who has a specified right of disposal (not impacting on public waters, rights of third parties or polluting) of the water on his property.

Tracking water scarcity

A mapping exercise has been done to identify areas where scarcity of surface and ground water are becoming a problem: [National River Basin Management Plan NGP 2009](#).

Allocation Regime Example: Surface and Ground Water Systems in Austria (as referred to in The Water Act; national scale)

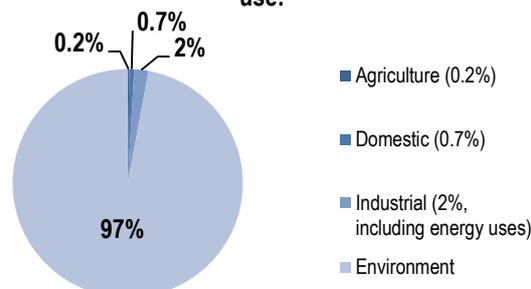
Physical features of the water resource

Austria disposes of abundant water resources. The average available water resources total about 76 billion m³; this corresponds to a specific water resources availability of more than 9.000 m³ per inhabitant. The river network of catchments >10km² is in total 31.466 km long, 136 groundwater bodies or groups of groundwater bodies have been delineated covering the whole territory of Austria. 62 Lakes with area >50ha cover in total 1.034km². Average precipitation is about 1.170 mm (with maxima of about 3.500 mm and minima of less than 500 mm). The Water Act applies to the national territory but provisions therein apply to the individual water bodies (surface and groundwater bodies).

The **flow rate managed or controlled** to some extent, as water systems are partially regulated.

There is **significant non-consumptive use** in hydropower, navigation and net abstractions of surface waters (energy cooling, water for industrial uses).

Mean annual inflow/ recharge consumed per use:



Defining the available resource pool

Are limits defined on consumptive use? Yes

- There is a limit to the proportion (e.g. percentage) of water that can be abstracted. This limit is defined by the requirements to achieve good status of all waters in river basin management plan prepared by the Federal Ministry of Agriculture, Forestry, Environment and Water Management in co-operation with regional authorities (Federal States). The plan is a statutory instrument that must be followed by administration.

Are environmental flows clearly defined? Yes

- Minimum environmental flows in surface waters are defined through discharges required to ensure the good ecological status of the respective water body. Definition of sustainable diversion limits of groundwater resources for abstraction take into account non-exceedance of available groundwater resources and requirements for long-term annual discharges required to preserve the ecological status of connected surface waters bodies.
- Terrestrial biodiversity together with the water ecosystem are also contemplated in this definition to avoid any significant damage or deterioration of the current status.
- Freshwater biodiversity is also taken into account by consideration of biological quality elements of freshwater ecosystem in the definition of good ecological status of surface water bodies.

What is the status of resource pool? Neither over-allocated nor over-used at national level.

- Based on the First River Basin Management Plan (2009), there is currently no groundwater body or group of groundwater bodies in Austria which is at risk to fail the good quantitative status. However, it cannot be ruled out that at local level groundwater bodies meet the criteria of being over-allocated despite the fact that every insignificant water use requires a permit, which should take into account already existing water uses (or status). The Water Act provides the power to modify, limit or prohibit existing permits for water uses by competent authority if, despite consideration of all restrictions associated with the permission, public interests are not sufficiently protected.

Are there arrangements to deal with impacts of climate change? Yes.

- In Austria, only about 3% of available water resources are used. However, changes in availability due to climate change impacts and consequences for water management are subject to regular scientific investigations and the results are considered in river basin management plans. No major changes are expected in the mid-term.

Factors taken into account in the definition of the available resource pool

Factor	Taken into account?	If taken into account, how?
Non-consumptive uses (e.g. navigation, hydroelectricity)	✓	In general, non-consumptive uses should not have significant effects on the available resource pool because water is returned to the resource pool after use in close vicinity of abstraction.
Base flow requirements	✓	For surface waters, through discharges required to ensure the good ecological status of the respective water body. For groundwater, definition of available groundwater resource pool either considers mean annual groundwater recharge minus long-term annual discharge required to ensure minimum (environmental) flows in connected surface water bodies and for connected terrestrial ecosystems (ungauged systems), or the available volume above critical (minimum) groundwater tables (gauged systems) with consideration of minimum discharge and quality standards in connected surface water bodies and quantity and quality standards of the respective groundwater body.
Return flows (how much water should be returned to the resource pool, after use)	✓	Consumptive uses (such as irrigation) play a very minor role in Austria. Majority of the available water resources used is usually returned in close vicinity of the abstraction so that regional water cycle is not impacted in general.
Inter-annual and inter-seasonal variability	✓	Minimum environmental flows for surface waters take into account inter-annual and inter-seasonal variability.
Connectivity with other water bodies	✓	Described above.
Climate change	✓	Climate change impacts on changes in availability of resources are investigated scientifically on a regular basis.

Entitlements to use water

Definition of entitlements	Characteristics of entitlements
<p>Are entitlements legally defined? Yes.</p> <p>Are private entitlements defined? No, as the permit to use water is based on public law (Water Act). The necessity for permits (or temporal limited authorisation to abstract water under the condition of obligations for environmental protection) shall ensure equity in access for all "potential" water users, the protection of interest on public water supply (as service for the public) and other public purposes.</p> <p>Nature of entitlement: Defined either as the purpose that water may be used for; maximum area that may be irrigated; maximum volume that may be taken in a given period, or as proportion of any water allocated to a defined resource pool. Water entitlements are unbundled from property titles with regard to quantity of abstraction but linked to location where water abstraction takes place.</p>	<p>If the entitlement is not used in a given period, the Water Act specifies certain circumstances (and partly associated periods) under which entitlements will expire. This includes also the loss of entitlements because of non-usage after a given period.</p> <p>Are entitlements differentiated based on the level of security of supply (or risk of shortage)? Public interests play a major role. Drinking water supply has a preferential status.</p> <p>Is there a possibility to trade, lease or transfer entitlements? In general, permits are linked to the location where the water abstraction takes place. Thus, a change of proprietaries implies the transfer of the permit but has to be notified to the competent authority. No trading.</p>

Period granted for: No more than of 90 years (e.g. for hydropower plants). The maximum term of abstraction for irrigation purposes is 12 years. The permit will be granted on individual basis for the longest reasonable period balancing the (water) needs of applicants and its investments against water management interests and technical/ water management development. This provision reflects the importance allocated to the sector requesting a permit but also the need to protect long term investments. Periodic renewal of the permit is expected.

Return flow obligations: on a case by case basis, if they have to be specified to ensure minimum environmental flows.

Type of users not required to hold a water entitlement to abstract water: public use of surface waters as well as use of groundwater by land owner within insignificant volumes and without impairment of rights on third parties or influences on other public or private waters. As uses not required holding a permit are restricted to hand-operated devices, a robust estimate of the percentage of total water uses related to these groups of users is not available. However, insignificant volumes should be less than 1% of total water resources.

Measures to address adverse impacts of an increase in these uses include: controls by general environmental and legal inspection in place, in addition of a tight network of sites where water flows and water tables in groundwater are observed.

Requirements to obtain a new entitlement or to increase the size of an existing entitlement: conditional on assessment of third party impacts, environmental impact assessment (EIA) and existing user(s) forgoing use.

Pre-defined priority classes



Abstraction charges

User category	Abstraction charge?	Basis for charge	Reflects water scarcity?
Agriculture			n/a
Domestic			
Industrial			
Energy production (not including hydro power)		Users do not have to pay for abstraction separately. However, users have to meet full costs of water services.	
Hydro power			
Other. Specify:			

Dealing with exceptional circumstances

Distinction between the allocation regimes used in “normal” and extreme/severe water shortage times? Yes.

How is the amount of water made available for allocation adjusted: In general, there is no variation of allocations; water entitlements specify maximum abstraction rates (with a term the entitlement is valid) the entitlement holder can make use of with exception of circumstances as described below.

Definition of “exceptional” circumstances: The Water Act refers to water shortages because of extended drought periods when existing water use entitlements cannot be satisfied to full extent. Moreover, general water abundance water allocations are targeted to tailor-made water uses of available water resources taking into account environmental flows, existing entitlement as well as exceptional or emergency situations; although there is no detailed definition made of “exceptional circumstances”.

Legal bodies declaring the onset of “exceptional” circumstances: District authority. Existing water use entitlements may be restricted due to shortages of water availability. Stakeholders are not involved in definition of exceptional circumstances.

Monitoring and enforcement

Responsible authority: Local authorities (Community).

Types of withdrawals monitored: Domestic

Monitoring mechanisms: Withdrawals for domestic water supply are monitored either by water supply associations or communities by metering; in addition a dense network of sites run by the state is in place monitoring water flows and water levels in surface waters and water tables in groundwater.

Sanctions: Sanctions are foreseen by the Austrian Water Act for non-compliance and differentiated according to severity of case.

Conflict resolution mechanisms? Yes, Water Act specifies resolution mechanisms for conflicting applications for water use entitlements; responsibility is at respective competent water authorities.