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KOMMUNAL KREDIT PUBLIC CONSULTING

The Austrian experience regarding the water and wastewater systems in rural and remote areas

Alexander Somer

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Content

KOMMUNAL KREDIT PUBLIC CONSULTING

1. Kommunalkredit Public Consulting (KPC)
At a glance

Fields of business	▪ KPC are specialised in the **management of support schemes** , programmes and consulting services ▪ Focus on climate and environmental projects in the fields of: – Water Renewable energies und energy efficiency – management, flood protection and remediation of contaminated sites – International Climate Protection and Climate Finance International
Industry	▪ Corporate Consulting and Corporate Organisation
business	▪ Revenue 2020 EUR 15,7 Million
Skilled employees	▪ 119 Employees as of December 2020
Structure of ownership	▪ 90 % Kommunalkredit Austria AG ▪ 10 % Raiffeisen Landesbank Oberösterreich

2. Organizational and Legal Aspects
Some characteristics

- 9 million inhabitants
- **9 federal states** (→ 10 administrations)
- 2093 municipalities
- More than 50% of population lives in smaller municipalities

- High number of small settlements
- **Mountainous** (Alps) and **lowlands** (→topography, climate, hydrology…)
- Special situation: Tourism (winter and/or summer) in small municipalities

2. Organizational and Legal Aspects
Some characteristics

- In general very **good (drinking) water quality** and sufficient amount of water
- Good quality of **receiving water bodies**
- **Rarely**: Water scarcity and requirement of (extensive) water treatment
- **Rehabilitation** of existing networks and plants has started
- Effects of **climate change**:
  - Stormwater intensity → larger sewers, retention basins
  - Groundwater decline → additional and/or deeper wells
  - Spring discharge decline → catchment of additional springs
  - Drought → extension of networks, larger water tanks

2. Organizational and Legal Aspects
Organizational forms

- **Municipal** water supply systems (90% of the municipalities)
- **Associations** of municipalities
- **„Cooperatives“** (approx. 3300)
- **“Communities” - small (private) water supply facilities** (approx. 5200)
- **“Private houseowner” with own well** (approx. 800,000)

→ Water supply and sanitation **dominated by the public sector** (Management, construction and operation)

→ Private companies **not relevant** in Austria (only for construction)

2. Organizational and Legal Aspects
Private Houseowner

- **„Private Houseowner“ (people)** operate their own facilities
  - Small wells on own plot (rarely springs)
  - Very small biological (!) wastewater treatment plants
  - Septic tanks are not state of the art
  - Water quality (depends on operator, local conditions)
  - Water tests not compulsory

→ Private person is owner of the facility (**private law**)

→ Houseowner often want to replace own wells by connection to municipal networks (better water quality)

2. Organizational and Legal Aspects
Communities

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- **„Water community“**
  - Private people (2-5 households) **jointly operate** small water supply facility and/or wastewater treatment plant
  - Small wells on the plot of one of the partner
  - Small biological wastewater treatment plants
  - **Water quality tests compulsory** (e.g.: small check every year + full check every 10 years)
  - Disagreements between the partners might lead to **disputes**
  - **Contract recommended** (financing, operation, dispute settlement)

→Private persons are owner of the facilities, „joint venture“, shared liability, (private law)

2. Organizational and Legal Aspects
Cooperatives (1)

- **Water/wastewater cooperative**
  - **Legal basis**: § 73 - § 86 Austrian water act (public law)
  - **Founder** conclude an agreement on voluntary basis (optional: compulsory membership or cooperative by law in public interest)
  - Minimum: 3 members (largest cooperative in AUT: 2600 members!)
  - **Statute of the cooperative**
    - Name, address…
    - Rights and obligations
    - Representation of the cooperative
    - Rules regarding cost sharing and statement of income and expenditures
    - Other financial issues (invoicing, …)
    - Dispute settlement

https://www.ris.bka.gv.at/GeltendeFassung.wxe?Abfrage=Bundesnormen&Gesetzesnummer=10010290

2. Organizational and Legal Aspects
Cooperatives (2)

- **Voting rights** according to share of cost
- Organs
  - **Chairman** is representative of the cooperative
  - **General Meeting (of all members)** is responsible for
    * Resolutions on the statute
    * Approval of the budget
    * Election of the committee
  - **Committee** = the management board or manager (cooperatives <20 members)
  - Financial auditor (internal or external)
- **Supervision** by public authorities

→ The cooperative is a **stable and proven model for small and medium sized** water supply or wastewater systems

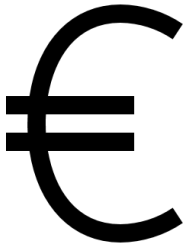
→ Foundation and operation supported by public authorities

3. Financing and subsidies

Sources of funding

- **Financing of water infrastructure by**
  - **Equity capital**
  - Debt capital (long term **bank loans**)
  - **State subsidies** (in average max. 1/3 of costs)

    sometimes: additional subsidies by federal states



- **Regulatory requirements for subsidies**
  - National guidelines for subsidies
  - State budget (currently 80 Mio Euro per year) for water/wastewater infrastructure
  - Federal State budgets

3. Financing and subsidies

Conditions for subsidies

- **Technical and legal conditions**
  - Cost/Benefit analysis → economically most advantageous solution
  - Permissions for construction and operation (water act)
  - Technical solution must be „state of the art“

- **Economic conditions** (>250 connected buildings)
  - Cost accounting system
  - Reasonable tariff systems
  - Business plan for future rehabilitation (10 years)

3. Financing and subsidies

Funding rates for subsidies

- **Subsidies for settlements up to 4 buildings** (lumpsums)
  - Euro 1400 for WWTP up to 4 PE; 150 Euro for each additional PE
  - Euro 2700 for wells / springs incl. pumps
  - Euro 150 per m3 water tank volume
  - Euro 600 for water treatment
- Subsidies for **objects in extreme location** (esp. mountain huts)
  - 60% of the investment cost
- **Larger infrastructure**
  - Basic funding rate 10% of (eligible) investment cost
  - Additional funding rate

    * up to **25%** for drinking water supply
    * up to **40%** for waste water treatment

    depends on spending capacity of the regions and specific costs in the past

4. Technologies
Decentral water infrastructure

- **Recommendations**
  - **Identification** and **evaluation of options** (technically, economically, lifecycle costs) by an engineer
  - Check: Safe and secured **water resources are accessible**
  - Check: **Connection of neighbouring houses**
  - **Water supply** should always go **hand in hand with waste water disposal**

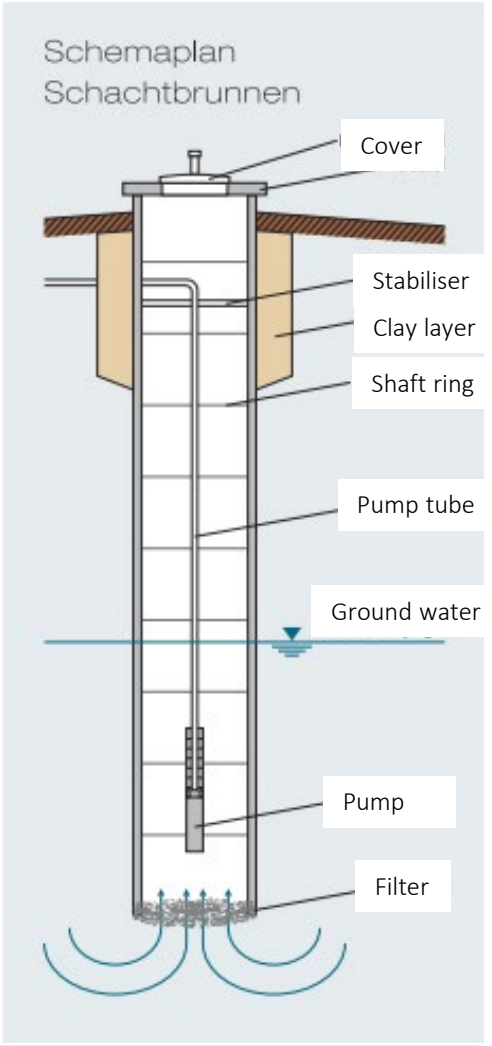
- **Common Technologies**

Water Supply	Waste Water Disposal
• Well (drilled or dug) • Spring capture	• Biological (aerated) system • Constructed Wetland

4. Technologies
Water supply in rural areas (1)

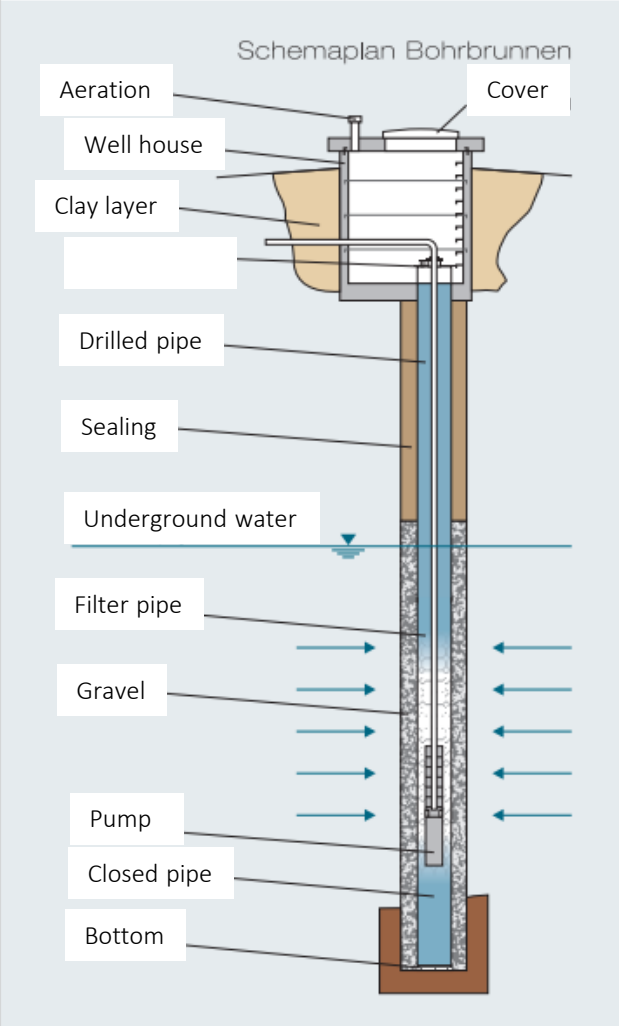
- Dug Well

Source: Amt der NÖ Landesregierung



4. Technologies
Water supply in rural areas (2)

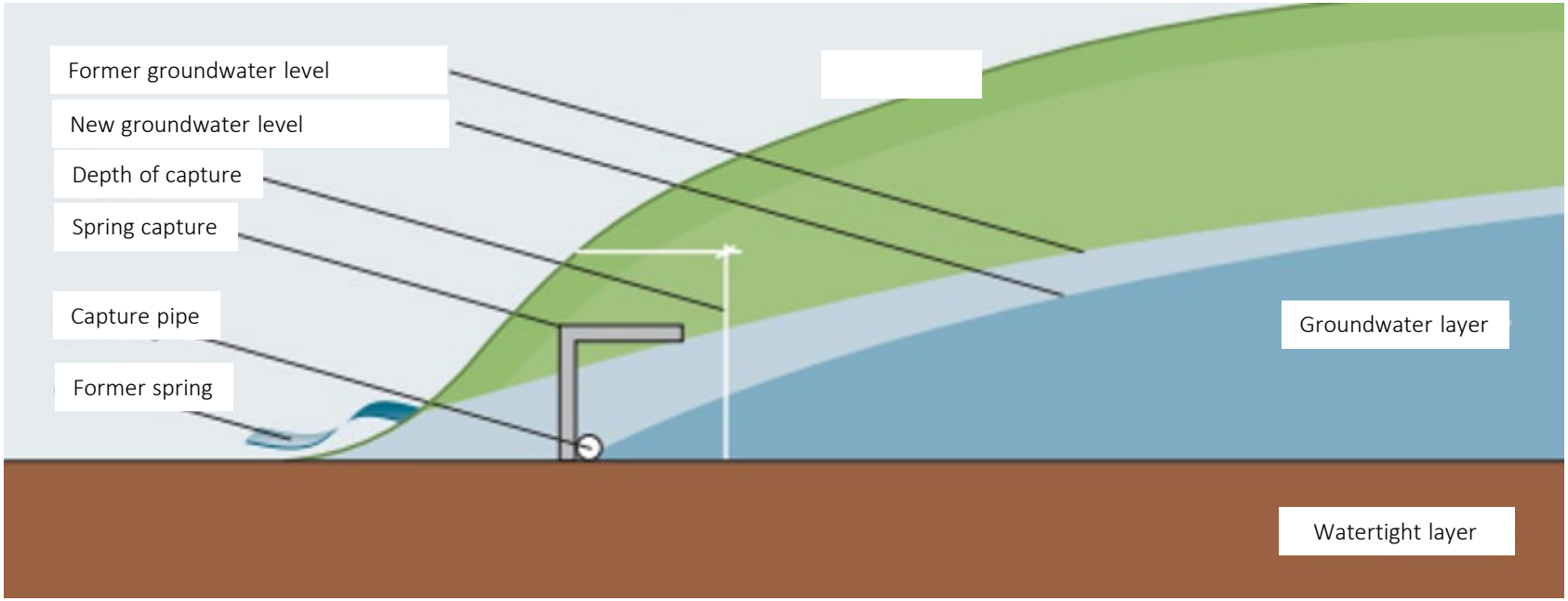
- Drilled Well



Source: Amt der NÖ Landesregierung

4. Technologies
Water supply in rural areas (3)

- Spring capture



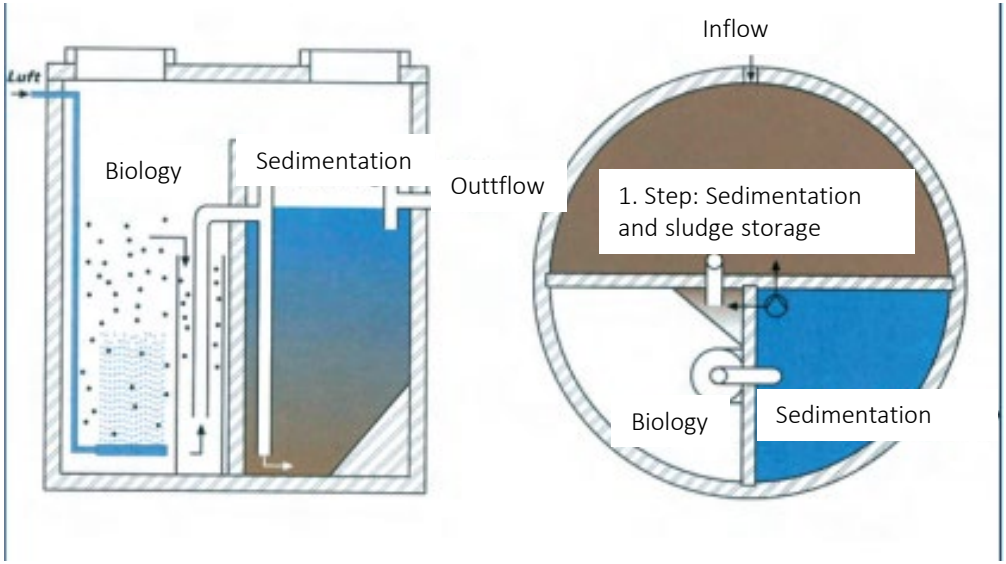
Source: Amt der NÖ Landesregierung

4. Technologies

Waste water disposal in rural areas (1)

- Biological (aerated) System

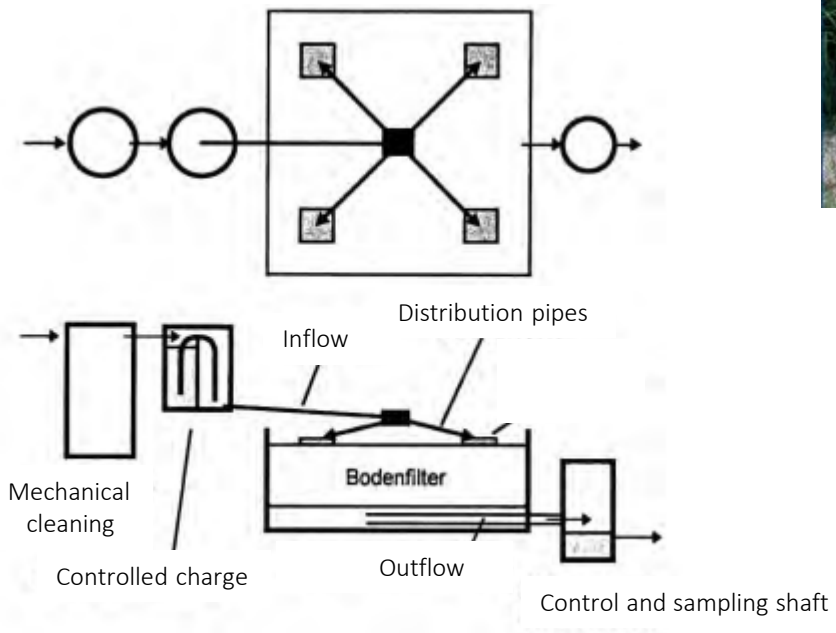
  optional: Trickling filter, SBR



Source: Amt der OÖ Landesregierung

4. Technologies
Waste water disposal in rural areas (2)

- Constructed Wetland



Source: Amt der OÖ Landesregierung

5. Final Recommendations

- Triangle “Owner” – “Engineer” – “Local Authorities” (Team Work)
- Water infrastructure is a (very) long term investment
  (Lifecycle Cost, Technologies, Climate change, …)
- Prefer common solutions (if possible) – Make common decisions
- Enable suitable organizational forms by public law
- Private People must take responsibility for the facilities (operation)
- Establish a transparent and simple subsidy system (guidelines, budget)

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KOMMUNAL
KREDIT
PUBLIC CONSULTING

Kommunalkredit Public Consulting GmbH

Tuerkenstrasse 9, 1090 Vienna
Phone: +43 1 31631
Fax: +43 1 31631 104
www.publicconsulting.at