

List of Reports prepared by the Technical Cooperation Project Protection of Jeita Spring

Report No.	Title	Date Completed
Technical Reports		
1	Site Selection for Wastewater Facilities in the Nahr el Kalb Catchment – General Recommendations from the Perspective of Groundwater Resources Protection	January 2011
2	Best Management Practice Guideline for Wastewater Facilities in Karstic Areas of Lebanon – with special respect to the protection of ground- and surface waters	March 2011
3	Guideline for Environmental Impact Assessments for Wastewater Facilities in Lebanon – Recommendations from the Perspective of Groundwater Resources Protection	November 2011
4	Geological Map, Tectonics and Karstification in the Groundwater Contribution Zone of Jeita Spring	September 2011
5	Hydrogeology of the Groundwater Contribution Zone of Jeita Spring	July 2013
6	Water Balance for the Groundwater Contribution Zone of Jeita Spring using WEAP including Water Resources Management Options and Scenarios	August 2013
7	Groundwater Vulnerability Mapping in the Jeita Spring Catchment and Delineation of Groundwater Protection Zones using the COP Method	February 2013
7b	Vulnerability Mapping using the COP and EPIK Methods*	October 2012
Special Reports		
1	Artificial Tracer Tests 1 - April 2010*	July 2010
2	Artificial Tracer Tests 2 - August 2010*	November 2010
3	Practice Guide for Tracer Tests	Version 1 January 2011
4	Proposed National Standard for Treated Domestic Wastewater Reuse for Irrigation	July 2011
5	Artificial Tracer Tests 4B - May 2011*	September 2011



Report No. Title **Date Completed** Artificial Tracer Tests 5A - June 2011* September 2011 6 Mapping of Surface Karst Features in October 2011 the Jeita Spring Catchment Monitoring of Spring Discharge and 8 May 2013 Surface Water Runoff in the Groundwater Contribution Zone of Jeita Spring Soil Survey in the Groundwater First Draft 9 Contribution Zone of Jeita Spring November 2011 Mapping of the Irrigation System in the 10 First Draft Jeita Catchment November 2011 Artificial Tracer Tests 5C - September 11 February 2012 2011* October 2013 Stable Isotope Investigations in the 12 Groundwater Contribution Zone of Jeita Spring Micropollutant Investigations in the 13 May 2012 Groundwater Contribution Zone of Jeita Spring* 14 Environmental Risk Assessment of the June 2012 Fuel Stations in the Jeita Spring Catchment - Guidelines from the Perspective of Groundwater Resources Protection Analysis of Helium/Tritium, CFC and June 2013 15 SF6 Tracers in the Jeita Groundwater Catchment* 16 Hazards to Groundwater and October 2013 Assessment of Pollution Risk in the Jeita Spring Catchment Artificial Tracer Tests 4C - May 2012* October 2013 17 18 Meteorological Stations installed by the October 2013 Project Risk estimation and management 19 October 2013 options of existing hazards to Jeita Project Exchange Meeting -November 2013 20 Lessons learnt from Technical Cooperation in Jordan and Lebanon **Advisory Service Document** Quantification of Infiltration into the May 2012 1 Lower Aquifer (J4) in the Upper Nahr Ibrahim Valley 1 - 1 Addendum No. 1 to Main Report June 2012



Report No. Title **Date Completed** [Quantification of Infiltration into the Lower Aquifer (J4) in the Upper Nahr Ibrahim Valley] 2 Locating the Source of the Turbidity June 2012 Peaks Occurring in April - June 2012 in the Dbayeh Drinking Water Treatment Plant Locating the Pollution Source of September 2012 3 Kashkoush Spring 4 Preliminary Assessment of Jeita Cave **April 2013** Stability Preliminary Assessment of the Most 5 June 2013 Critical Groundwater Hazards for Jeita Spring Handover of Water Resources 6 November 2013 Monitoring Equipment and Stations Installed by the BGR Project 7 **Environmental Impact Assessment for** September 2013 the JSPP Wastewater Treatment Plant (Annex A of submitted EIA) and Wastewater Collector Reports with KfW Development Bank (jointly prepared and submitted to CDR) Jeita Spring Protection Project October 2011 1 Phase I - Regional Sewage Plan 2 Jeita Spring Protection Project -May 2012 Feasibility Study - Rehabilitation of Transmission Channel Jeita Spring Intake - Dbaye WTP 3 Jeita Spring Protection Project September 2013 - Environmental Impact Assessment for (BGR contribution in main the Proposed CDR/KfW Wastewater report and Annex A) Scheme in the Lower Nahr el Kalb Catchment

^{*} prepared in cooperation with University of Goettingen