1. Record Nr. UNINA9910299419803321 Autore Pelto Mauri Titolo Climate Driven Retreat of Mount Baker Glaciers and Changing Water Resources / / by Mauri Pelto Pubbl/distr/stampa Cham:,: Springer International Publishing:,: Imprint: Springer,, 2015 **ISBN** 3-319-22605-3 Edizione [1st ed. 2015.] Descrizione fisica 1 online resource (115 p.) Collana SpringerBriefs in Climate Studies, , 2213-784X Disciplina 551.2 Soggetti Physical geography Climatic changes Hydrology **Environmental management** Earth System Sciences Climate Change/Climate Change Impacts Hydrology/Water Resources **Environmental Management** Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Description based upon print version of record. Nota di bibliografia Includes bibliographical references at the end of each chapters. Sommario/riassunto This book presents the impact of climate change on Mount Baker glaciers, USA, and the rivers surrounding them. Glaciers are natural reservoirs that yield their resource primarily on warm dry summer days when other sources are at their lowest yield. This natural tempering of drought conditions will be reduced as they retreat. Mount Baker, a volcano in the Cascades of Washington, is currently host to 12 principal glaciers with an area of 36.8 km2. The glaciers yield 125 million cubic

meters of water each summer that is a resource for salmon, irrigation

watersheds. Recent rapid retreat of all 22 glaciers is altering the runoff from the glaciers, impacting both the discharge and temperature of the Nooksack and Baker River. Over the last 30 years we have spent 270 nights camped on the mountain conducting 10,500 observations of snow depth and melt rate on Mount Baker. This data combined with

and hydropower to the Nooksack River and Baker River

observations of terminus change, area change and glacier runoff over the same 30 years allow an unusually comprehensive story to be told of the effects of climate change to Mount Baker Glaciers and the rivers that drain them.