



Upstream, Downstream

EXPLORING WATERSHED CONNECTIONS

ROWENA RAE



Orca Book Publishers is proud of the hard work our authors do and of the important stories they create. If you are reading this book and did not purchase it or did not check it out from a library provider, then the author has not received royalties for this book. The ebook you are reading is licensed for single use only and may not be copied, printed, resold or given away. If you are interested in using this book in a classroom setting, we have digital subscriptions with multi user, simultaneous access to our books, or classroom licenses available for purchase. For more information, please contact digital@orcabook.com.

ivaluecanadianstories.ca



Upstream, Downstream

EXPLORING WATERSHED CONNECTIONS

ROWENA RAE



ORCA BOOK PUBLISHERS

Text copyright © Rowena Rae 2021

Published in Canada and the United States in 2021 by Orca Book Publishers.
orcabook.com

All rights reserved. No part of this publication may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying, recording or by any information storage and retrieval system now known or to be invented, without permission in writing from the publisher.

Library and Archives Canada Cataloguing in Publication

Title: Upstream, downstream : exploring watershed connections / Rowena Rae.

Names: Rae, Rowena, author.

Series: Orca footprints ; 21.

Description: Series statement: Orca footprints ; 21 | Includes bibliographical references and index.

Identifiers: Canadiana (print) 20210095881 | Canadiana (ebook) 20210095903 | ISBN 9781459823921 (hardcover) | ISBN 9781459823938 (PDF) | ISBN 9781459823945 (EPUB)

Subjects: LCSH: Watersheds—Juvenile literature. | LCSH: Watershed hydrology—Juvenile literature.

Classification: LCC GB980 .R34 2021 | DDC j551.48—dc23

Library of Congress Control Number: 2020951476

Summary: Part of the nonfiction Orca Footprints series for middle-grade readers, this book examines our relationships with watersheds and what we need to do to protect them for future generations.

Orca Book Publishers is committed to reducing the consumption of nonrenewable resources in the making of our books. We make every effort to use materials that support a sustainable future.

Orca Book Publishers gratefully acknowledges the support for its publishing programs provided by the following agencies: the Government of Canada, the Canada Council for the Arts and the Province of British Columbia through the BC Arts Council and the Book Publishing Tax Credit.

The author and publisher have made every effort to ensure that the information in this book was correct at the time of publication. The author and publisher do not assume any liability for any loss, damage, or disruption caused by errors or omissions. Every effort has been made to trace copyright holders and to obtain their permission for the use of copyrighted material. The publisher apologizes for any errors or omissions and would be grateful if notified of any corrections that should be incorporated in future reprints or editions of this book.

Front cover photos by susan.k./Getty Images and Francesco Bergamaschi/Getty Images.

Back cover photos by Christine Phillips/Getty Images, hadynyah/Getty Images and fenkep/Getty Images.

Design by Teresa Bubela

Layout by Dahlia Yuen

Edited by Kirstie Hudson

Printed and bound in China.

For my father, who gave me my love of writing.



Perito Moreno Glacier in Argentina.
AUMPHOTOGRAPHY/GETTY IMAGES

Contents

Introduction

CHAPTER ONE A WATERY WORLD

Beginning with Basics

Nomads by Nature

Farming Frenzy

Putting Down Roots

Stomping on the Earth

CHAPTER TWO THE NUTS AND BOLTS OF WATERSHEDS

Where the River Runs

Where the Lake Stands

Wondrous Wetlands

Deep Down

On the Land

Round and Round

The Only Constant Is Change

CHAPTER THREE WATERSHEDS IN TROUBLE

Build It Big

Rivers Under Siege

Demolishing Dams
Water for Rivers
Water for White Gold
Forests for the Future?
Going, Going...Not Quite Gone
Paving Over Paradise
Straight as a Ruler
Lost Streams
Go, Watersheds, Go!

CHAPTER FOUR WATERSHED WARRIORS!

The Water Walker
Where Elephants Roam
The Water Man of India
The Chocolate Connection
Sprouting Roofs
Connections that Count

Resources

Glossary

Index

Acknowledgments