

BEFORE THE NEW MEXICO PUBLIC REGULATION COMMISSION

IN THE MATTER OF  
PUBLIC SERVICE COMPANY OF NEW MEXICO'S  
ABANDONMENT OF SAN JUAN  
GENERATING STATION UNITS 1 AND 4

)  
)  
)  
) Case No. 19-00018-UT  
)  
)  
)

FILED IN OFFICE OF  
OCT 18 2019  
NM PUBLIC REGULATION COMM  
RECORDS MANAGEMENT BUREAU

DIRECT TESTIMONY AND EXHIBITS

OF

STERLING GROGAN

ON BEHALF OF  
NEW ENERGY ECONOMY

OCTOBER 18, 2019



1 managed environmental affairs for a BHP copper mine in La Escondida, Chile, currently the  
2 world's most productive copper mine.

3 I have also worked at the San Juan mine. From 1984-1988 I was senior environmental  
4 manager for BHP, overseeing three San Juan County coal mines: La Plata, Navajo Mine, and San  
5 Juan Mine. Thereafter, I was involved in the largest-ever use of livestock to revegetate mined  
6 lands (on the Navajo Nation). I also was contracted to evaluate revegetation at the world's largest  
7 open pit uranium mine at Jackpile.

8 **Q. Have you previously given testimony before regulatory and legislative bodies?**

9 A. I have provided expert testimony in a variety of cases involving mining, mine  
10 reclamation and environmental monitoring in approximately half dozen cases. These have  
11 primarily been before administrative agencies. I testified on behalf of the coal industry and coal  
12 producing Indigenous communities.

13 **Q. What is the purpose of your testimony?**

14 A. The purpose of my testimony is to describe the environmental conditions at San Juan  
15 Generating Station and the San Juan mine.

16 **Q. Have any coal combustion materials ("CCR/coal ash") ever been spilled at or near  
17 San Juan?**

18 A. Yes. Sometime in the early 1980s there was what PNM called an "accidental spill" of  
19 coal sludge from the pollution control equipment (which did not work as designed). It was  
20 approximately a dump truck load of sludge and it was deposited in an arroyo. The mining  
21 company, BHP, agreed to clean it up for PNM. The sludge was deposited in a mine pit at the  
22 surface mine and covered with "overburden," which is the geologic material on top of the

Case No. 19-00018-UT  
Direct Testimony of Sterling Grogan  
On behalf of New Energy Economy  
October 18, 2019

1 uppermost coal seams, comprised primarily of shale and sandstone.

2 **Q. Was that the only spill on the site?**

3 A. No. About two or three years later there was another “accidental spill.” The incident  
4 occurred at midnight and was a fairly large volume of scrubber sludge that was incorrectly  
5 deposited in a part of the pit not designated for sludge disposal. When we discovered it in the  
6 morning both BHP and PNM had a series of meetings at the power plant and at the office in  
7 Albuquerque. PNM insisted it was not a serious issue but New Mexico’s Energy Minerals and  
8 Natural Resources Department and New Mexico’s Environment Department were concerned and  
9 were involved with the resolution. I am uncertain how the situation was ultimately resolved.

10 **Q. Is there any coal dust or “fly ash” on the San Juan site?**

11 A. There is coal dust everywhere at the San Juan plant. A friend of mine who worked in the  
12 coal preparation plant at the Generating Station described being “covered” with coal dust  
13 constantly.

14 **Q. Does this conclude your testimony?**

15 A. Yes, at this time.

16

**Sterling Grogan [sterling.grogan@gmail.com](mailto:sterling.grogan@gmail.com)**

**C.V.**

2012 - present Senior Advisor, CarpeDiemWest Healthy Headwaters. I provide technical support and policy guidance in ecology, watershed management, and integration of agroecological perspectives to this NGO which supports source water protection projects with municipal water utilities throughout the West.

2007 - 2010 New Mexico Project Manager, Biophilia Foundation. I managed the 3,300 acre Pritzlaff Ranch, collaborated with local ranchers and foresters on watershed management, and advanced state-wide initiatives with four universities (including Yale) for landscape-scale forest & grassland rehabilitation, experiential education, and riparian ecology.

2006 Water Management Consultant, Water User Associations of Tajikistan (USAID Project of New Mexico State U./Winrock). I collaborated with local experts to provide technical support to southern villages for irrigation scheduling and structural improvements based on acequia strategies, and partnered with a Tadjik soil scientist's effort to create an agroecology extension service for Badakhshan.

1997 - 2006 Biologist/Planner, Middle Rio Grande Conservancy District, Albuquerque. I managed aquatic and terrestrial ecology of the 10,000+ acre Rio Grande bosque riparian forest, including aquatic and avian endangered species protection, efficiency upgrades on a 63,000-acre irrigation system, construction of new habitat for endangered fish and birds, landscape-scale riparian rehabilitation, collaborative management of the Rio Grande with the U.S. Bureau of Reclamation, Corps of Engineers, and Fish & Wildlife Service, and innovative use of goats to replace mechanical and chemical treatments for riparian weed control.

1990 - 1997 Principal, RPM Ecological Consultants. Key projects: Largest-ever use of livestock to revegetate mined lands (in the Navajo Nation), ecological analysis of canals in a Venezuela National Park, endangered landscape protection in Costa Rica, and revegetation of the world's largest open pit uranium mine in New Mexico.

1988 - 1998 Graduate Fellow in Ecology, U. of New Mexico Department of Biology research in restoration ecology in New Mexico and Latin America. I taught ecology and did research in landscape ecology.

1974 - 1988 Environmental Manager, BHP Minerals (New Mexico, Kentucky, Chile) I managed industrial ecology projects at mines in the U.S., Chile, and Brazil.

1966 - 69 U.S. Army

1964 - 66 U.S. Peace Corps Volunteer, northeast Brazil

### **Education**

M.S. Biology (Ecology), U. of New Mexico, 1999

M.S. Agriculture (Soil Conservation), California Polytechnic State U., 1974

B.A. Political Science (Public Administration), California Polytechnic State U., 1972

### **Foreign Languages**

Spanish, Portuguese (I am professionally fluent in both.) I served as a professional interpreter/ translator of Vietnamese during the war.

## References

Kyle S. Harwood, Attorney. 505.829.8999 kyle@egolfaw.com  
Martha Graham, New Mexico Rural Water Assn. 505.977.5733 martha@nmrwa.org  
Mike Hamman, PE, CEO/Chief Engineer, Middle Rio Grande Conserv. Dist. 505.206.6378  
mike@mrgcd.us  
Jim Dunlap, former Chair ISC. 505.326.3626 waterjim1@live.com  
Donald Wolberg, Professor of Geology, NM Tech.U. 505.838.0543 aragontie@msn.com  
Kimery Wiltshire, Executive Director, CarpeDiemWest. 415.332.2112  
kimery@carpediemwest.org  
Avery Anderson, former ED, Quivira Coalition. 914.715.0088 avery@globetrotterfoundation.org

## Publications

- Grogan, S., Watkins, A. 2006. Adaptive management of watersheds for enhanced water quality and quantity. Paper presented at the 2006 AWRA Summer Specialty Conference, Missoula, Montana.
- Crawford, C., Grogan, S. 2005. Bosque landscape alteration will reduce fires and conserve water: A proposal. A collaborative publication of the Middle Rio Grande Conservancy District, Albuquerque, New Mexico.
- Najmi, Y., Grogan, S., Crawford, C. 2005. Bosque landscape alteration strategy: Objectives, basic requirements, and guidelines. A collaborative publication of the Middle Rio Grande Conservancy District, Albuquerque, New Mexico.
- Grogan, S. Co-author, New Mexico Forest & Watershed Health Plan. Forestry Division, New Mexico Energy, Minerals, and Natural Resources Department, Santa Fe, New Mexico.
- Estrada, D.J., Grogan, S., and Gadzia, K.L. 1997. Livestock impacts for management of reclaimed land at Navajo Mine: The decision making process. American Society for Surface Mining and Reclamation annual meeting, Austin, Texas.
- Grogan, S. 1996. Collaborative decision making for sustainable development: A model for applied landscape ecology. Invited paper presented at the 6th International Conference of the Israel Society for Ecology and Environmental Quality Sciences, Jerusalem, Israel.
- Grogan, S. 1994. El pastoreo en las Americas antes y despues del "descubrimiento." Presentacion convidado para el SEMINHOL, Banco de Mexico, Chihuahua, Mexico.
- Grogan, S. 1993. Holistic resource management: A model for building sustainable landscapes. Invited contribution presented to the Mexico/U.S. Symposium on Sustainability, Santa Fe, New Mexico.
- Grogan, S. 1993. Decision making for sustainable use of natural resources: Land reclamation at the Navajo Mine. A case study presented to the Task Force on Indigenous Peoples at the IUCN/ISI Symposium of Indigenous Peoples, Zuni Pueblo, New Mexico, 1993.

- Grogan, S. 1993. Non-coal mine regulation: Key issues for legislative action. A proposal submitted to the 1993 Session of the New Mexico State Legislature. Santa Fe, New Mexico.
- Grogan, S. Co-author. 1992. New Mexico State Alternative Energy Plan. Office of the Secretary, New Mexico Energy, Minerals and Natural Resources Department, Santa Fe, New Mexico.
- Grogan, S. 1992. Manejo de paisajes amenazados: Un modelo para libros rojos. Presentacion convidado para la IUCN/CESP Reunion Regional para America Central, San Jose, Costa Rica.
- Grogan, S. 1992. A model for the management of threatened landscapes. Invited paper presented at the IUCN/CESP Workshop on Red Books for Endangered Landscapes, Montecatini, Italy.
- Grogan, S., Estrada, O.J. 1992. Holistic resource management in mined land reclamation: The Navajo Mine. Invited paper presented at the New Mexico Mining Association annual meeting, Farmington, New Mexico.
- Grogan, S. 1992. A model for the management of threatened landscapes. Invited chapter in Red Books for Threatened Landscapes. Working Group on Red Books for Threatened Landscapes, IUCN/CESP Working Paper 4.
- Ruzzo, W.J., and Grogan, S. 1991. Plowing new ground: The evolution of a mine land reclamation program in the semi-arid southwestern United States. Invited paper presented at the Australian Mining Industry Council Annual Workshop on Reclamation, Brisbane, Australia.
- Grogan, S. 1991. Temporal change in a constructed vegetation community: Land reclamation at Navajo Mine. Paper presented at the International Association for Landscape Ecology World Congress, Ottawa, Canada.
- Grogan, S. 1991. The Navajo Mine holistic resource management project: A different model for rural economic development. Invited testimony before the President's Council on Rural America, Santa Fe, New Mexico.
- Grogan, S. 1990. Environmental impact assessment of the Naiguata and Camuri Canals. El Avila National Park, Venezuela. Internal report presented to SEA International for C.A. La Electricidad de Caracas, Caracas, Venezuela.
- Watson, R.P., and Grogan, S. 1987. With the best of intentions: The relocation of historic Native American burials, a perspective from the Navajo Reservation. Invited paper presented at the Conference on Native Americans, Native American Lands, and Archeology, sponsored by the Navajo Nation and the Arizona Humanities Council, Phoenix, Arizona.
- Grogan, S. 1986. The need for innovation in arid land reclamation. Invited paper presented at the Society of Mining Engineers Fall Meeting, St. Louis, Missouri.
- Grogan, S. Co-author. 1986. Paleontological Collecting. National Academy Press.
- Caldwell, C. and Grogan, S. 1983. Range management at the Navajo coal surface mine. Internal report for Utah International Inc., Farmington, New Mexico.
- Grogan, S. Co-author. 1981. Surface Mining: Soil, Coal, and Society. National Academy Press.

BEFORE THE NEW MEXICO PUBLIC REGULATION COMMISSION

IN THE MATTER OF THE APPLICATION OF )  
PUBLIC SERVICE COMPANY OF NEW MEXICO )  
FOR APPROVAL TO ABANDON SAN JUAN )  
GENERATING STATION UNITS 1 and 4 )  
 )  
PUBLIC SERVICE COMPANY OF NEW MEXICO, )  
Applicant. )

Case No. 19-00018-UT

AFFIDAVIT OF STERLING GROGAN

STATE OF NEW MEXICO )  
 ) ss  
COUNTY OF SANTA FE )

1. My name is Sterling Grogan. I am an ecologist and I have a Masters degree in Soil Conservation from California Polytechnic State University (CPSU).
2. From 1984-1988 I was appointed senior environmental manager for BHP with responsibility for overseeing all three coal mines in San Juan County: La Plata, Navajo Mine, and San Juan Mine.
3. I authored the attached testimony and I believe it to be true and accurate to the best of my knowledge.

Further Affiant sayeth naught.

*Sterling Grogan*  
STERLING GROGAN

*October 17, 2019*  
DATE

Subscribed and sworn to before me by Sterling Grogan on this the 17<sup>th</sup> day of October, 2019.

*Loretta A. Bischoff*  
Notary Public

My Commission Expires: 3/19/22





**BEFORE THE NEW MEXICO PUBLIC REGULATION COMMISSION**

**IN THE MATTER OF PUBLIC SERVICE COMPANY )  
OF NEW MEXICO'S ABANDONMENT OF )  
SAN JUAN GENERATION STATION UNITS 1 & 4 )**

**19-00018-UT**

**CERTIFICATE OF SERVICE**

I CERTIFY that on this date I sent to the parties and individuals listed here, via email only, a true and correct copy of

**THE DIRECT TESTIMONY & EXHIBITS OF NEW ENERGY ECONOMY  
EXPERT WITNESS STERLING GROGAN**

issued on October 18, 2019.

<b>Stacey Goodwin</b>	Stacey.Goodwin@pnmresources.com;	<b>Anna Sommer</b>	ASommer@energyfuturesgroup.com;
<b>Ryan Jerman</b>	Ryan.Jerman@pnmresources.com;	<b>Chelsea Hotaling</b>	CHotaling@energyfuturesgroup.com;
<b>Richard Alvidrez</b>	Ralvidrez@mstlaw.com;	<b>Tyler Comings</b>	tyler.comings@aeclinic.org;
<b>Dan Akenhead</b>	DAkenhead@mstlaw.com;	<b>Don Hancock</b>	sricdon@earthlink.net;
<b>Mark Fenton</b>	Mark.Fenton@pnm.com;	<b>Stephen Curtice</b>	stephen@youtzvaldez.com;
<b>Carey Salaz</b>	Carey.salaz@pnm.com;	<b>Shane Youtz</b>	shane@youtzvaldez.com;
<b>Steven Schwebke</b>	Steven.Schwebke@pnm.com;	<b>James Montalbano</b>	james@youtzvaldez.com;
<b>Heather Allen</b>	Heather.Allen@pnmresources.com;	<b>Barry W. Dixon</b>	bwdixon953@msn.com;
<b>Mariel Nanasi</b>	Mariel@seedsbeneaththesnow.com;	<b>Kyle J. Tisdell</b>	tisdell@westernlaw.org;
<b>David Van Winkle</b>	Davidvanwinkle2@gmail.com;	<b>Erik Schlenker-</b>	eriksg@westernlaw.org;
<b>Aaron El Sabrout</b>	Aaron@newenergyeconomy.org;	<b>Goodrich</b>	Singer@westernlaw.org;
<b>Joan Drake</b>	jdrake@modrall.com;	<b>Thomas Singer</b>	mike@sanjuancitizens.org;
<b>Lisa Tormoen Hickey</b>	lisahickey@newlawgroup.com;	<b>Mike Eisenfeld</b>	sonia@sanjuancitizens.org;
<b>Jason Marks</b>	lawoffice@jasonmarks.com;	<b>Sonia Grant</b>	caroljdavis.2004@gmail.com;
<b>Matthew Gerhart</b>	matt.gerhart@sierraclub.org;	<b>Carol Davis</b>	chooshgai.bitsi@gmail.com;
<b>Katherine Lagen</b>	Katherine.lagen@sierraclub.org;	<b>Robyn Jackson</b>	cfreccleanenergy@yahoo.com;
<b>Ramona Blaber</b>	Ramona.blaber@sierraclub.org;	<b>Thomas Manning</b>	Debra@doll-law.com;
<b>Camilla Feibelman</b>	Camilla.Feibelman@sierraclub.org;	<b>Debra S. Doll</b>	Katie.coleman@tklaw.com;
<b>Michel Goggin</b>	MGoggin@gridstrategiesllc.com;	<b>Katherine Coleman</b>	Tk.eservice@tklaw.com;
<b>Nann M. Winter</b>	nwinter@stelznerlaw.com;	<b>Thompson &amp; Knight</b>	jcottrell@westmoreland.com;
<b>Keith Herrmann</b>	kherrmann@stelznerlaw.com;	<b>Jeremy Cottrell</b>	jyee@cabq.gov;
<b>Dahl Harris</b>	dahlharris@hotmail.com;	<b>Jane L. Yee</b>	lb@tahoeeconomics.com;
<b>Peter Auh</b>	pauh@abcwua.org;	<b>Larry Blank, Ph.D.</b>	sismail@cabq.gov;
<b>Jody Garcia</b>	JGarcia@stelznerlaw.com;	<b>Saif Ismail</b>	david@baakelaw.com;
<b>Andrew Harriger</b>	akharriger@sawvel.com;	<b>David Baake</b>	Gchappelle.law@gmail.com;
<b>Donald E.</b>	degruen@sawvel.com;	<b>Germaine R.</b>	steven.neville@nmlegis.gov;
<b>Gruenemeyer</b>	jaherz@sawvel.com;	<b>Chappelle</b>	bill@williamsharer.com;
<b>Joseph A. Herz</b>	smichel@westernresources.org;	<b>Senator Steve Neville</b>	jamesstrickler@msn.com;
<b>Steven S. Michel</b>	April.elliott@westernresources.org;	<b>Senator William</b>	Anthony.Allison@nmlegis.gov;
<b>April Elliott</b>	pat.oconnell@westernresources.org;	<b>Sharer</b>	roddmontoya@gmail.com;
<b>Pat O'Connell</b>	dhowe@highrocknm.com;	<b>Rep. James Strickler</b>	paul@paulbandy.org;
<b>Douglas J. Howe</b>	bthronatty@newmexico.com;	<b>Rep. Anthony Allison</b>	patrick@marrslegal.com;

Bruce C. Throne  
Rob Witwer  
Jeffrey Albright  
Amanda Edwards  
Michael I. Garcia  
Greg Sonnenfeld  
Charles F. Noble  
Stephanie Dzur  
Vicky Ortiz  
Peter J. Gould  
Kelly Gould  
Jim Dauphinais  
Michael Gorman  
Randy S. Bartell  
Sharon T. Shaheen  
John F. McIntyre  
Marvin T. Griff  
David Ortiz  
Jennifer Breakell  
Lorraine Talley

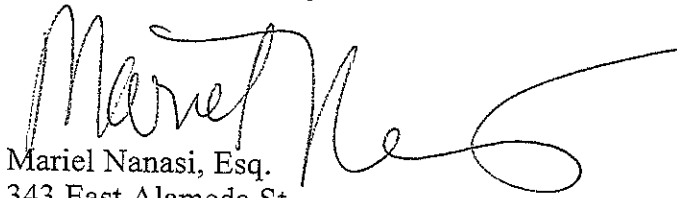
witwerr@southwestgen.com;  
JA@jalblaw.com;  
AE@jalblaw.com;  
mikgarcia@bernco.gov;  
greg@sonnenfeldconsulting.com;  
Noble.ccae@gmail.com;  
Stephanie@Dzur-law.com;  
Vortiz@montand.com;  
pgouldlaw@gmail.com;  
kellydarshan@gmail.com;  
jdauphinais@consultbai.com;  
mgorman@consultbai.com;  
rbartell@montand.com;  
sshahen@montand.com;  
jmcintyre@montand.com;  
Marvin.Griff@thompsonhine.com;  
DOrtiz@montand.com;  
jbreakell@fmtn.org;  
ltalley@montand.com;

Rep. Rod Montoya  
Rep. Paul Bandy  
Patrick J. Griebel  
Richard L. C. Virtue  
Carla R. Najjar  
Philo Shelton  
Robert Cummins  
Kevin Powers  
Steven Gross  
Martin R. Hopper  
Cholla Khoury  
Gideon Elliot  
Robert F. Lundin  
Elaine Heltman  
Andrea Crane  
Douglas Gegax  
Michael C. Smith  
Bradford Borman  
John Bogatko  
Marc Tupler  
Beverly Eschberger  
Georgette Ramie  
Dhiraj Solomon  
Anthony Sisneros

rvirtue@virtuelaw.com;  
Csnajjar@virtuelaw.com;  
Philo.Shelton@lacnm.us;  
Robert.Cummins@lacnm.us;  
Kevin.Powers@lacnm.us;  
gross@portersimon.com;  
mhopper@msrpower.org;  
ckhoury@nmag.gov;  
gelliot@nmag.gov;  
rlundin@nmag.gov;  
Eheltman@nmag.gov;  
ctcolumbia@aol.com;  
dgegax@nmsu.edu;  
Michaelc.smith@state.nm.us;  
Bradford.Borman@state.nm.us;  
John.Bogatko@state.nm.us;  
Marc.Tupler@state.nm.us;  
Beverly.Eschberger@state.nm.us;  
Georgette.Ramie@state.nm.us;  
Dhiraj.Solomon@state.nm.us;  
Anthony.Sisneros@state.nm.us;

**DATED** this 18th day of October, 2019.

**New Energy Economy**



Mariel Nanasi, Esq.  
343 East Alameda St.  
Santa Fe, NM 87501-2229  
(505) 469-4060  
[mariel@seedsbeneaththesnow.com](mailto:mariel@seedsbeneaththesnow.com)