# October 2020

# NM WRRI Procedural and Editorial Guidelines for Principal Investigators

# New Mexico Water Resources Research Institute

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## PROCEDURAL GUIDELINES

#### Introduction

Principal investigators (PIs) of research projects sponsored by the New Mexico Water Resources Research Institute (NM WRRI) are required to follow certain procedural guidelines. These guidelines allow the institute to fulfill its obligations to federal, state, and various other sponsors. Any questions about these guidelines should be directed to the NM WRRI. Contact information appears on the front cover of these guidelines.

## **Reports**

Pls must provide the institute with several reports on each WRRI-sponsored project. Some reports are required for record keeping purposes, while others are designed to meet information transfer objectives.

→ Technical Completion Reports

The technical completion report is a complete description of the project's objectives, methods, and results. A final technical completion report must be received by the institute on or before the project completion date. Within about 60 days following the project completion date, reports will undergo peer review for scientific content as well as in-house copyediting.

The NM WRRI requires a digital copy in Microsoft Word format (.docx) of the report. The institute will handle printing, distribution, and internet posting of technical completion reports. Special printing requirements, such as maps larger than page size and color graphics, should be anticipated and discussed with institute staff. Please read the institute's editorial guidelines, which begin on page 5, before preparing the report. Also, please note that the institute will not consider further proposals from a principal investigator or co-investigator who has a delinquent technical completion report. Failure to complete a report may also jeopardize future funding for the PI's department, college, or institution.

# → Periodic Reports

Each year the institute requires PIs to provide information concerning the status of each project to be used in NM WRRI's annual report to the USGS. Also, some funding sources require that PIs submit quarterly or biannual progress reports. The PI will be notified if interim reports are required.

#### → Theses and Dissertations

PIs must provide the institute with a copy of master's theses or doctoral dissertations based on work supported entirely or partially by NM WRRI funds. The institute should receive these publications whether or not the student author was paid with NM WRRI funds.

→ Journal Articles, Books, and Bulletins Pls must submit to NM WRRI a copy of printed bulletins or journal article reprints, books, or any other published material that resulted from work financed under the project. Publishing research results in the open literature is the best way to communicate with the scientific community and reach a wider audience. The publication record of a PI is taken into consideration when a research proposal is being reviewed for possible funding. The institute also should be notified of papers presented at professional meetings, speeches, and any other articles that illustrate the productivity of the sponsored research. NM WRRI also likes to be notified of special recognition or awards received by a PI and of subsequent grants received when NM WRRI funds were used as seed money.

All published work supported wholly or in part by NM WRRI funds must bear an acknowledgment of support. An example is included in the editorial guidelines.

## **Popular Information**

Institute staff may write press releases and articles for its monthly online newsletter, *New Mexico Water* e*News*, based on interviews with PIs about their research. PIs should inform the institute when their projects are at a stage that might be of popular interest. The NM WRRI often uses photographs related to research projects in presentations, publications, and displays.

# **Report Extensions**

The due date for final technical completion reports is at the end of the stated research period. If special circumstances warrant, the project deadline may be extended upon written request to the NM WRRI at least 60 days prior to the deadline. To extend the deadline, PIs must present compelling reasons that will enhance the research. An extension request must demonstrate that substantial work remains to be done and that sufficient funds are available for the direct expenditures required. Additional extensions will be granted only under very exceptional circumstances with comprehensive documentation justifying the request. Extensions will not be granted solely for report writing. When an extension has been granted, the PI must submit quarterly progress reports to the NM WRRI.

## **Written Communications**

All written communications between the PI and the NM WRRI must be copied to the PI's department head and research center director or appropriate vice president. This procedure ensures that all parties remain informed of activities concerning the research project.

## **Site Visits**

Institute staff may want to visit the research site with the PI to learn how the project is proceeding. A mutually convenient time for the visit will be arranged.

# **Financial Policy**

The PI is ultimately responsible for NM WRRI-funded accounts. If the budget is over-expended or expenditures were improperly charged, the PI and his/her department or college are responsible for providing funds for the unauthorized spending.

# \$ Budget

Funds for an award may **only** be used for the categories established in the proposal budget. Therefore, it is of critical importance that the budget be precise in allocating sufficient resources to perform the terms of the contract. If unforeseen problems occur that require budget revisions, the PI must submit a written request to the institute for approval **before** the expenditure is made. Failure to receive prior approval could result in nonpayment of unauthorized expenditures.

All major purchases for the project should be made during the first few months, and all expenses except those required for report preparation should be incurred at least 30 days before the project completion date. This lead time enables us to prepare timely final financial reports.

## \$ Salaries for Principal Investigators

Up to eight weeks of summer salary can be paid through NM WRRI grants, provided it was included in the approved budget. The use of NM WRRI funds to supplement salaries above the regular salary rate is not allowed. Except in rare circumstances, the use of NM WRRI funds to provide a portion of an investigator's salary during the academic year is not allowed. Exceptions must be approved in advance.

# \$ Accuracy of Effort Reporting

Effort reporting records of actual time expended on the research grant should be certified by the department head or other responsible person and kept on file in the department for accessibility in case of an audit request. Effort Reporting is a federal compliance requirement. Federal Guidelines 2 CFR Part §200.430 contains the federal regulatory requirements for certifying time spent on sponsored projects. New Mexico State University requires all individuals who receive federally sponsored funding to comply with University policies and sponsoring agency regulations regarding proposing, charging, reporting, and certifying of effort for those awards.

## \$ Overtime

Institute funds may **not** be used to pay overtime.

\$ Facilities and Administrative Costs/Cost Sharing
NM WRRI projects do not allow Facilities and Administrative (F&A) costs as a
recoverable cost to the department, but they may be used to meet cost-sharing
requirements when appropriate. The inclusion of direct costs as cost sharing, such
as a portion of the investigator's salary and corresponding benefits, is encouraged
whenever possible.

## **Travel Policy**

All requests for travel funds must be specified in the proposal budget. All travel to conferences, conventions, and professional meetings sponsored by technical and professional organizations must be clearly identified in the proposal budget and must include specific details on the destination, justification for the trip, and travel expenses in order to be considered and approved by the NM WRRI.

# → Domestic Meetings

Approval is normally given if the PI is a listed speaker or member of a panel and participation is related directly to the supported project. Attendance solely as an observer or listener is not adequate justification for the use of NM WRRI funds. A maximum of \$1000 **per project** will be authorized for active participation at professional meetings.

## → Foreign Meetings

Normally this travel must be for the purpose of reporting on institute-sponsored research of international significance. NM WRRI support will be limited to a maximum of \$1000.

Per diem on federally funded projects at New Mexico State University (NMSU) must be based on current federal per diem rates, as specified in the policy for federally funded travel. Rates can be obtained from the NMSU travel office.

Any change in the approved proposed travel plan or revision to the travel budget requires prior approval by the NM WRRI.

# **Principal Investigator Status**

→ The PI must notify the WRRI in advance if there is to be any change in his/her status, including sabbatical leave, other types of extended leave, change in position responsibilities, or intent to terminate.

Any significant deviation from proposed project objectives or methodology requires prior written approval by the NM WRRI. Expenditures for unapproved activity are not allowed, and the PI and his/her department or college are responsible for providing funds for the unauthorized spending.

## **EDITORIAL GUIDELINES**

#### Introduction

Technical completion reports are the institute's primary means of information transfer. Because NM WRRI, its cooperators, and clients are judged by the reports, it is important that every report be of the highest technical and editorial quality.

These reports are read by a variety of audiences including researchers, water resources professionals and technicians, and the general public. Because of the wide variety of audiences, the NM WRRI requires that scientific jargon be explained and that the report abstract especially be clear and concise.

## Parts of an NM WRRI Report

Because NM WRRI will print, post on the internet, and otherwise distribute the report, the editorial guidelines should be followed for each technical completion report. Each report must contain:

- → Title page (Figure 1). The title page must contain a descriptive title, NM WRRI project account numbers, nature of report whether technical completion or miscellaneous, names, departments and institutions of all authors, month and year the report is ready for printing/ publishing, and acknowledgement of all funding sources.
- → Disclaimer (Figure 2). Some reports require a special disclaimer depending on funding entity requirements; any questions regarding the disclaimer should be addressed to NM WRRI.
  - The disclaimer as shown in Figure 2 must be page ii.
- → Acknowledgements (if any)
- → Informative abstract, including a list of keywords (Figure 3). An informative abstract of 200 words or less should appear on page iii or iv if there is an acknowledgement page. Provide several keywords suitable for indexing the project.
- → Table of contents, including list of figures and/or tables
- → Justification of work performed Clearly state project objectives which should reflect those included in the proposal. Provide detailed statements indicating the degree to which project objectives were achieved.
- → Review of methods used
- → Discussion of results and their significance
- → Principal findings, conclusions, and recommendations to water resources problems and recommendations for additional research or application
- → Summary
- → References
- → Appendices (optional)

# PREDICTIVE SOIL MAPPING TO IMPROVE THE PHYSICAL BASIS OF DISTRIBUTED ECOHYDROLOGICAL MODELS IN ARID ENVIRONMENTS

By

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TECHNICAL COMPLETION REPORT Account Number 128377 Technical Completion Report #382

December 2019

New Mexico Water Resources Research Institute in cooperation with the Department of Plant & Environmental Sciences New Mexico State University

The research on which this report is based was financed in part by the U.S. Department of the Interior, Geological Survey, through the New Mexico Water Resources Research Institute.



The purpose of the NM Water Resources Research Institute (NM WRRI) technical reports is to provide a timely outlet for research results obtained on projects supported in whole or in part by the institute. Through these reports the NM WRRI promotes the free exchange of information and ideas and hopes to stimulate thoughtful discussions and actions that may lead to resolution of water problems. The NM WRRI, through peer review of draft reports, attempts to substantiate the accuracy of information contained within its reports, but the views expressed are those of the authors and do not necessarily reflect those of the NM WRRI or its reviewers. Contents of this publication do not necessarily reflect the views and policies of the Department of the Interior, nor does the mention of trade names or commercial products constitute their endorsement by the United States government.

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Fouling of ion-exchange membranes (IEMs) hinders electrodialysis (ED) for water/wastewater treatment because it affects membrane performance, increases energy consumption, and shortens membrane life. This study aims to modify commercially available IEMs by surface coating polymers in combination with TiO2 nanoparticles or graphene oxide (GO) nanosheets to enhance fouling resistance of the IEMs. Membrane modification significantly improved biofouling resistance, enhanced desalting efficiency, permselectivity of monovalent ions over divalent ions, and reduced energy consumption of ED process compared to that using unmodified membranes.

Keywords: Electrodialysis, antifouling, ion-exchange membrane, desalination, membrane modification

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# **Style Guide**

The institute uses *The Chicago Manual of Style*, 17<sup>th</sup> edition, published by The University of Chicago Press, as its reference for punctuation, capitalization, and format. Beginning on page 14 is an abbreviated style sheet containing the most common style questions in report writing. *Merriam-Webster's Collegiate Dictionary*, Eleventh Edition, is WRRI's standard for spelling and hyphenation. If Pls use a different style reference, they should inform the NM WRRI of the title when they submit the final report.

Although it is strongly recommended that PIs follow the NM WRRI suggested style, no matter what reference is used, the most important guideline in preparing a technical completion report is **consistency** in format, writing, and editing. If the report was written through a team effort, the senior author should take editorial responsibility for the entire report. Editorial control is crucial when separate authors contribute individual chapters. The senior author's final edit can ensure that the report's style, format, and tone will be smooth and consistent.

## **Report Format**

Prepare your report (all text, including titles, headings, notes, bibliography, appendices, etc.) using Microsoft Word, with the following formatting guidelines. Remember to be **CONSISTENT**.

## **Basic Formatting**

- → 11 or 12-point Times New Roman (avoid disproportional font types, like Courier)
- → Lines should be 1.5-spaced or double-spaced
- → Left-aligned (do not full justify the text). Use the hyphenation mode to prevent excessive disparity in line length.
- → Use a 6 ½" X 8 ¾" image area for 100-percent reproduction. Generally, hard copies are perfect bound.
- → 1-inch left, right, top, and bottom margins
- → Single space references, disclaimer, footnotes, and table and figure captions.
- → Pages numbered consecutively, centered, one-half inch from the bottom of page.
- → Use a single space (not two spaces) after periods and colons.
- → Use a five-space indentation for paragraphs (by using the tab key or indentation options located under Word's Format (paragraph) menu.
- → If you would like an extra line space to appear between paragraphs, that is acceptable.
- → Technical text with mathematical equations may require additional spacing
- → Count the title page as lowercase 'i' but do not type it on the page.
- → Count the disclaimer as page 'ii,' the acknowledgement page as 'iii,' the abstract page as 'iv,' and the table of contents as 'v.' If there is no acknowledgement page, the table of contents would be 'iv.' If there is a "List of Figures" or "List of Tables," they would be on pages 'v' and 'vi,' respectively, depending on whether there is an acknowledgement page.
- → Count the first page of text as page 1, but the page number should not be typed on the page.

## Bold, Italics, and Other Character Formatting

- → Use italics, not underlining, wherever italics are intended (e.g., book titles, empathized words, foreign terms). Use italics for emphasis sparingly.
- → Bold: Avoid using boldfaced text whenever possible.
- → Underlining: Avoid as much as possible.

## Headings and Subheadings

- → CENTER, BOLD, and CAPITALIZE MAIN HEADING, followed by a double space.
- → Second heading is bold, upper and lower case at left margin. Add one extra line space after heading, before beginning the text.
- → Third heading is upper and lower case at the left margin. Do not add an extra line space after heading.
- → Fourth heading is at left margin, upper and lower case, followed by a period. Text follows directly after the period.

An example of four types of headings:

#### **METHODS**

# **Egg Collection and Experimental Setup**

Origin of Eggs

Gravid adult *H. amarus* used in these experiments were obtained from the captive stock...

Measurements. Specific gravity, egg diameter, and total length of newly hatched larvae were measured on random samples of eggs from the treatment aquaria...

#### Lists in Text

- → All items in a list must be parallel, or syntactically alike: He enjoyed researching, writing, and experimenting. Not: He enjoyed to research, writing, and experiments within the classroom.
- → No punctuation follows items in a list unless they consist of complete sentences: The project failed for the following reasons:
  - a. Small cracks in the casing
  - b. Poor foundation construction
  - c. Inadequate ventilation
- → Commas do not usually follow items in a vertical list. If the items in a vertical list grammatically complete the sentence in which they appear, commas may but do not have to be used. When used, the last item is followed by a period: The results of the experiment included:
  - The results of the experiment morage

the removal of salt from the water.

the development of a new technology, the understanding of desalination processes.

## Tables and Figures

- → Tables and figures should appear in the text immediately following the paragraph in which they are referred. Unless the table or figure requires an entire page, text should continue immediately following the table or figure.
- → The table or figure should be bordered with a single thin line.
- → Use photographs only if they add information to the report.
- → Use ink drawings or high contrast photographic reproductions. Shading within figures does not reproduce well. Reports are made accessible to the public via the institute's website. Color may be used for the digital copy of the report. A limited number of hard copies of the report will be printed.
- → Identify tables by Arabic numerals above the tables. Use this form: TABLE 1. Increases in Salt Load with Time
- → Within the text, use this form:
  - The salt load in the water increased with time (Table 1).
- → Identify each drawing, chart, or graph by Arabic numeral beneath the illustration. Use this form, left justified under the figure: FIGURE 1. Major River Basins in New Mexico
- → Within the text, use this form:
  - There are nine river basins in New Mexico (Figure 1).
- → Prepare illustrations using TIFF, JPEG, or PNG files. Resolution of illustrations should be at least 300 ppi (pixels per inch, often called "dots per inch"). Use illustrations, photographs, and tables that reduce proportionately to the 6 ½" x 8 ¾" image area.
- → If a figure or a table is reduced, do not reduce the title and figure or table number. Make sure the contents of the figure or table are readable.
- → Lines of a computer program should be single spaced.

#### References

A reference list must contain all sources cited in the text of the report. References must be complete and accurate. Generally, entries are arranged alphabetically and are not numbered. Examples below follow NM WRRI's preferred reference style (modified from *The Chicago Manual of Style*, 17<sup>th</sup> edition.) Pls can use other reference styles as long as they are used consistently throughout the report.

# → Format for NM WRRI reports

Brungard, C.W. and M.J. Allan. 2019. Predictive Soil Mapping to Improve the Physical Basis of Distributed Ecohydrological Models in Arid Environments. New Mexico Water Resources Research Institute, Technical Completion Report No. 382, New Mexico State University, Las Cruces, NM.

# → Format for proceedings

Catlett, L. 2013. The Future of Water in New Mexico. In *Proceedings of the 58<sup>th</sup> Annual New Mexico Water Conference: New Water Realities – Proposals for Meaningful Change.* Edited by C. Ortega Klett. pp. 1-3.

## → Format for journal article

Qavi, S., A. Lindsay, M. Firestone, and R. Foudazi. 2019. Ultrafiltration Membranes from Polymerization of Self-assembled Pluronic Block Copolymer Mesophases. *Journal of Membrane Science*. 580:125-133.

# → Format for electronic journal article

Senay, G.B., M.E. Budde, and J.P. Verdin. 2011. Enhancing the Simplified Surface Energy Balance (SSEB) Approach for Estimating Landscape ET: Validation with the METRIC Model. *Agricultural Water Management*, 98:4:606-618, https://doi:10.1016/j.agwat.2010.10.014.

## → Format for forthcoming works

'Forthcoming' is used when an article has been accepted for publication by a journal, but the date of publication is not yet known. 'In press' is used for a printed work that has already been typeset and paginated. 'In preparation' is used for an article that has not yet been submitted to a journal.

Castillo-Gomez, R., A. Johnson, L. Mu, and Y. Park. "Effect of geographic location on the performance of a single-slope solar still." *Desalination and Water Treatment* (forthcoming).

## → Format for dissertation or thesis

Ketchum, D.G. 2016. High-Resolution Estimation of Groundwater Recharge for the Entire State of New Mexico Using a Soil-Water Balance Model. (master's thesis, New Mexico Tech, https://hdl.handle.net/1721.1/39144).

# → Format for chapter in a volume

Ferguson, B.K. 1994. Infiltration Hydrologic Design. In *Stormwater Infiltration*, 125-152. Boca Raton: Lewis Press.

## → Format for three or more authors

Rafn, E., B. Contor, and D. Ames. 2008. Evaluation of a method for estimating irrigated crop evapotranspiration coefficients from remotely sensed data in Idaho. *Journal of Irrigation and Drainage Engineering*. 134:6:722-729.

## → Format for several works by same author

National Research Council. Committee on Fluoride in Drinking Water. 2006a. Fluoride in drinking water: A scientific review of EPA's standards. Washington, D.C.: National Academies Press.

——. Committee on Improving Practices for Regulating and Managing Low-Activity Radioactive Wastes. 2006b. *Improving the Regulation and* 

Management of Low-Activity Radioactive Wastes. Washington, D.C.: National Academy Press.

# → Format for a presentation

Papers included in published proceedings of a meeting or in a journal may be formatted like a book chapter or journal article. Other presentations are formatted as follows:

Bahr, T. 2005. My life and How to Make Wine. Lecture presented at the 50<sup>th</sup> Annual New Mexico Water Conference, Las Cruces, New Mexico.

## → Format for personal communication

Brown, D. 2015. Telephone conversation with the author, 12 October. Smith, J. 2019. Letter to author, 10 January.

→ Format for websites other than electronic periodicals
Include as much information as possible: author of the content, title and owner of
site, URL, and access date in parenthesis if content is time sensitive. If this
information cannot be determined, then a descriptive phrase must be included along
with the URL to indicate what the source is.

USGS and Department of the Interior. Water science for schools: Water use in the United States. http://ga.water.usgs.gov/edu/wateruse.html (accessed May 22, 2019).

## Use this reference format in the text:

A 2014 study (Smith) found diminished water quality in the basin. According to Jones (2000), water quality is heavily affected by the geological features of the basin. However, there are "multiple other factors to consider" (Lopez et al. 2016, 112). Scientists agree that more research is necessary (Reeves 2000; White 2001; Paine 1998).

When direct quotations are used in the text, the parenthetical citation must include a page number. The name and date are separated from the page number by a comma, without p. or pp. as above.

## **NM WRRI Style Sheet**

## Spelling

- → Use the first spelling given in *Merriam-Webster's* and use American spellings instead of British or Canadian spellings (except in quotations).
- → Special terms may be italicized on first use but should be roman for all subsequent uses. Double quotation marks, though not preferred, may be used if done consistently. Never use single quotation marks.

# Hyphenation

- → Do not hyphenate compound words formed with prefixes such as anti, co, multi, non, post, pre, semi, sub, un, and the like unless the lack of hyphen results in a misleading or confusing word (e.g., re-creation v. recreation).
- → Compound adjectives preceding nouns are hyphenated: water-quality regulations; pre- and post-experiment observations
- → A compound adjective that begins with an adverb ending in *ly* does not require a hyphen: highly developed species
- → Most words should be divided according to pronunciation, which can be ascertained from Merriam-Webster's. Division should be made after a vowel, unless the break causes mispronunciation. Where a vowel alone forms a syllable in a word, it should be on the first line: physi-cal, not phys-ical or physic-al. Treat dipthongs as single vowels: aneu-rysm

# Capitalization

- → Names of academic departments should be lowercase, (e.g., she is an associate professor in the department of biology at New Mexico State University).
- → Use lowercase for academic titles, except named chairs (e.g., professor of history; chair of the English department; Jackson and Nichols Professor of English).
- → Use all lowercase for references to parts, chapters, tables, figures, and the like (e.g., as shown in table 3).
- → All headings, titles, etc. should use headline-style capitalization (main words are capitalized and less important words are lowercased).
- → Capitalize Black and Indigenous along with other racial, ethnic, national, and cultural terms that are normally capitalized (e.g., Asian, Hispanic); White and Brown, when used to describe race, may also be capitalized at the author's discretion.
- → Lower Rio Grande Basin, Capulin Basin, *but* lower Rio Grande, the basin
- → Lea County Underground Water Basin
- → Well-known geographic areas are capitalized, *but* directions are not: the Southwest, but the wind came from the southwest
- → The city of Albuquerque, but Oklahoma City
- → Names of administrative, judicial, and legislative bodies, departments, offices, and so on are capitalized, *but* adjectives derived from them and generic terms for such bodies are lowercased:

New Mexico State University, the university Department of Economics, the economics department The United States Congress, Congress, congressional The United States Senate, the Senate, senatorial

The New Mexico Supreme Court, the state supreme court

- → Some terms related to governmental bodies are always lowercased: administration, the federal government, government, state
- → Pueblo Indians, *but* the pueblo (when referring to municipalities)
- → Ogallala Formation, *but* Ogallala aquifer
- → Formal names of plans, programs, laws, and so on are capitalized: the Federal Clean Water Act
- → The generic terms mountain, river, ocean, county, city, and so on are capitalized when they occur as part of the name. When the same generic term applies to two names, it is capitalized when it precedes the names and lowercased when it follows the names: Lakes Michigan and Erie, *but* the Mississippi and Missouri rivers; Curry County, *but* Curry and Quay counties

## Punctuation

- → Only one space should follow any punctuation at the end of a sentence.
- → Use the serial, or Oxford, comma between elements in a list (e.g., The book contains tables, photographs, and maps.).
- → Use commas with introductory phrases of four or more words and with shorter phrases as needed for clarity. It is also acceptable to use commas with introductory phrases regardless of length as long as this is done consistently.
- → Items in a series are separated by commas (unless they are separated by conjunctions in which case no comma is needed). When a conjunction joins the last two items of a series, a comma should appear before the conjunction: They were concerned with water quality, quantity, and conservation. But They were concerned with water quality and quantity and conservation.
- → When items in a series involve complete sentences or long, complex phrases, they should be separated by semicolons.
- → Form the possessive of singular nouns ending in *s* by adding 's regardless of pronunciation (e.g., Hayes's book, Jesus's disciples, Descartes's Meditations).
- → Use semicolons to join two independent clauses not joined by a conjunction: They tested water quality; the test results were inconclusive. *Not* They tested water quality; and the test results were inconclusive.
- → Adverbs are preceded by a semicolon and followed by a comma when used to join two independent clauses: They tested water quality; however, the test results were inconclusive.
- → The colon functions much the same as a semicolon, but emphasizes sequence more: Many of the research scientists shared specialties: four of them, for example, studied hydrologic models.

## Abbreviations in the Text

→ Sen. Tom Udall, *but* the senator; Gov. Michelle Lujan Grisham, Governor Lujan Grisham (when title is with surname only), *but* the governor

- → Spell out names and include the abbreviation in parenthesis on the first reference; all subsequent references can be abbreviated: U.S. Geological Survey (USGS) on first reference, USGS on subsequent references; New Mexico Water Resources Research Institute (NM WRRI) on first reference, NM WRRI on subsequent references
- → Office of the State Engineer (OSE) is the agency; John D'Antonio is the state engineer
- → Spell out the state after city, followed by a comma: "Las Cruces, New Mexico, is a small college town."
- → Spell out street, avenue, boulevard, and so on in addresses, with the exception of the abbreviations NW, NE, SE, SW: 1060 Main Street NE
- → Spell out months and days
- → In a text with numerous abbreviations, a list of abbreviations should be prepared.
- → NM WRRI prefers a.m. and p.m. instead of am/pm or AM/PM.
- → Abbreviations such as e.g., i.e., etc., fig., chap., vol., and the like are acceptable in parentheses and notes but not in running text. Common Latin abbreviations should not be italicized. Always use a comma after e.g. and i.e.
- → NM WRRI prefers the abbreviation US (all caps, no periods, no space), but U.S. is acceptable if used consistently.

## Numbers and Dates in the Text

- → Spell out whole numbers from one through one hundred and round numbers; however, in a numbers-heavy or technical manuscript, you may spell out just numbers under 10.
- → Spell out common fractions: one-half, two-thirds
- → Percentages should always appear as numerals, but in nontechnical copy the word percent should be used, and in scientific copy the symbol %: Only 45 percent of the electorate voted. The treatment resulted in a 10%-15% reduction in discomfort.
- → Spell out numbers at the beginning of a sentence: Ten samples were taken.
- → Express numbers in figures for physical quantities in technical copy: 3 mi, 120 g. In nontechnical contexts, spell out the numbers: two days, one pint
- → A numeral followed by a portion of the number spelled out is used to express large numbers: 5 million, 2.3 billion
- → Dates should be written as cardinal numbers: June 19, 2019, not June 19th
- → Spell out references to particular centuries or decades: the twenty-first century, the nineties, the mid-1980s
- → When a period of time is referred to only by the month and year, no comma is necessary: March 2006

#### Problem Words

a, an (correct choice of a and an depends on the initial sound, not the initial letter, of the word that follows. A should be used before all words beginning with a consonant sound except silent h (an honor) and before words beginning with vowels that represent combined consonant and vowel sounds (university, unit). An should be used before all vowel sounds)

```
aboveground
acre-feet (AF)
affect (verb meaning to impress, to influence)
algae are (when algae is plural)
among (more than two); between (only two)
and/or (avoid; rephrase sentence)
cleanup (noun or adjective); clean up (verb)
continual (implies close recurrence in time, rapid succession); continuous (implies
   constant, without interruption)
comprise (suggests including or containing: This section of the book comprises ten
   different subjects.)
Corps of Engineers
crop-production function
currently (now); presently (soon)
data are
E. coli
effect (verb meaning to accomplish, to cause, to bring about; noun meaning the
   result of some action)
e.g. (use only in parenthetical phrases, in text use 'for example'; always use a
   comma after e.g.)
ensure (to guarantee); insure (to underwrite financial risk)
farther (distance); further (time or quantity)
first, second, third better than firstly, secondly, thirdly
floodplain
freshwater
aaude
geohydrologic
aroundwater
growing degree days (GDD)
i.e. (use only in parenthetical phrases, in text use 'that is'; always use a comma
   after i.e.)
imply (to suggest or indicate without being expressed); infer (to deduce)
in-depth
in situ (not underlined)
instream flow (verb); streamflow (noun)
irrigating (verb); irrigation (noun)
internet
less (refers to quantity: less sugar); fewer (refers to number: fewer houses)
long-range
long-term
mg/l (milligrams per liter)
more than (amounts); above (location)
'non' words are not hyphenated except when the root word is a proper noun (non-
   Indian) or when the 'non' modifies two words (non-interest bearing account; non-
   point source pollution)
online
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other (use when making a comparison such as: San Juan is drier than any other place in the world. *Not* San Juan is drier than any place in the world.)

regardless, not irregardless

Rio Grande, not Rio Grande River

riverbed salt grass salt cedar saltwater seawater

semiarid

snowmelt

sprinkler-line source

that/which

(That applies to things and people and is used restrictively to narrow a category or identify a particular item)

(Which applies to things and is used nonrestrictively to provide more information; it is preceded by a comma except when used with a preposition, i.e. in which) that (this, it, etc.) should be clarified through specificity to avoid possible ambiguity toward (better than towards)

wastewater water-cooled watercourse waterline watermaster water right water table website wetlands

## **Reducing Wordiness**

To these Reduce these a certain length of time after after the conclusion of after am (is, are) going to shall, will as a result of because as to whether whether at the present time now at this point in time now before long soon by means of bγ by the time when

due to the fact that due to, since

during the time that while for the amount of for in accordance with by inasmuch as since

in case if in connection with with in lieu of instead in order to instead in case if if instead in case if in case if in case in case if in cas

in regard to regarding, about insofar as because, since, as

in the event that if in the month of May in view of the fact that if in May

it is interesting to note that (begin with word following that)

long in size long
of great importance important
on a timely basis quickly
on condition that if

one of the purposes one purpose

prior to before provided that if

regarded as being regarded the length of five yards five yards

the necessary funds money, funding

with the exception of except