REPORT WRITING CHECKLIST

1. Is the problem:
   a. stated clearly,
   b. stated completely,
   c. limited to a specific, manageable size?

2. Are the facts stated:
   a. clear,
   b. applicable to the problem
   c. sufficient to satisfy the needs of everyone who must use your report,
   d. distinguished from inferences,
   e. accurate?

3. Are you sure:
   a. of the cause and effect relationships you present,
   b. of the validity of your facts and opinions,
   c. of your fairness in representing the case as it is instead of how you would like it to be?

4. Have you listed all possible solutions, even if you don’t approve of them?

5. Will the solution you recommend satisfy the conditions of the problem?

6. Is there more than one possible solution which would work equally well?

7. Are your recommendations clearly and logically supported by the rest of your report?

8. Is the material well organized?

9. Are sentences free of involved and awkward construction?

10. Is the language free of jargon?

11. Have you included illustrations (pictures, drawings, maps, quotations, news clippings, tape recordings) as attachments where they will clarify and support your report? Have you referred to these attachments in your report at the appropriate spots?

12. Have you re-read your report to see if it communicates what you intended?
BE YOUR OWN EDITOR

A good writer must be a good self-editor, and self-editing is the hardest part of writing.

----- A first draft usually contains too many words, some wrong words, ambiguous words, double-meaning words, words that cannot be understood or can be misunderstood, plus a lot of plain awkwardness.

----- To write you must be in a creative mood: to edit, you must be in a critical mood.

Look for these faults common to mediocre writing:

1. Too few action verbs. Most forms of the verb “to be” are weak colorless words. “has dominance over” = “dominates”

2. Too many abstract nouns. i.e., words ending in ion, ment, ance, ence, ism. “give consideration to” = “consider” “make recommendation to” = “recommend”

3. Too many prepositions. “prior to the purchase of ...by the State...” = “before the State bought...”

These three faults are complementary and interdependent; i.e., they generally go together. “We have a requirement for...” contains an abstract noun, an inactive verb, and a preposition. Convert the abstract noun to an active verb and that also eliminates the preposition: “We require...”

4. Too many adjectives and adverbs. Result from choosing the wrong nouns and verbs, being redundant, or being overly cautious. “extremely large man” = “a giant” “steep cliff” = “cliff” “relatively large” - “large”

5. Too few conjunctions. Conjunctions tell how one idea is related to another. and, moreover, or furthermore alerts the reader that what follows is adding to the preceding statement.

but, however, or although indicates contrast, what follows will subtract from or impact another statement.

6. Too much passive voice. Write naturally - subject, verb, object. “We measured the trees” rather than “The trees were measured.”
7. Too many nouns used as adjectives.
   “shower activity” = “shower”
   “management practices” = “management”
   “population level” = “population”

8. Indefinite antecedents for pronouns.
   “Although the oak wilt spores may spread through root grafts, they occur...”
   Either repeat the correct noun, make the number of the pronoun agree with the
   number of its intended antecedent and disagree with the numbers of all other
   possible antecedents, or recast the sentence.

   “Eight widely separated sources of eastern red cedar seed were planted in one
   nursery bed.”

   “Income from growing, harvesting, and processing timber would be
   strengthened.”

10. Wordiness. A well-edited manuscript will be shorter than the original.
    “Continued use of burning as a management tool over a longer period of years
    could result in adverse effects on both soil and vegetation.”

    Can be reduced to 1/3 as many words.

11. Roundabout statements.
    “Noninfiltrated precipitation water”

    “The heights of the planted shortleaf pine and red cedar were positively related
    to the size of the opening where they were planted and, generally, to the
    freedom from hardwood competition.”

    Contains a nondescript verb (were related), five prepositions, abstract noun
    (heights).

    “The more evident effect of burning were the earlier initiation of vegetative
    growth and earlier maturity of individual plants.”

1Adapted from Chapter 10 in Planning Research for Resource Decisions by Stoltenberg et al.
Example of the importance of word order in conveying the intended meaning of a sentence.  

Only the bishop gave the baboon the bun.

The only bishop gave the baboon the bun.

The bishop only gave the baboon the bun.

The bishop gave only the baboon the bun.

The bishop gave the only baboon the bun.

The bishop gave the baboon only the bun.

The bishop gave the baboon the only bun.


Confusing Pairs of Words

1. like, as
   
   Use as for a connective between clauses (conjunction) and like for a preposition.

   “This method is like the one we used.” (preposition)
   “Do this problem as you did the others.” (conjunction)

2. that, which
   
   Use that to introduce a restrictive (defining, limiting) clause and which to introduce a nonrestrictive (nondefining, descriptive) clause.

   “The fish that survived the treatment lived 3 years.”
   “The third fish, which survived the treatment, lived 3 years.”

3. who, that
   
   Use who as the pronoun for human subjects; use that as the pronoun for non-human subjects.

   “People who are ill and need treatment.”
   “Machines that are broken need repair.”
4. **affect, effect**

   *Affect* (v) means to influence or act upon;

   *Effect* (n) is the result of the influence, but *effect* (v) means to produce, do, make, accomplish, or bring about.

   “. . . to determine how temperature affects germination.”

   “The effect of low temperature is poor germination.”

   “We can effect an increase in germination by increasing the temperature.”

5. **varying, various**

   These are not synonymous, i.e. expressing a similar meaning.

   *Varying* means changing or being altered;

   *various* means several of something.

   “Light intensity was controlled by cheesecloth shades of varying thickness” is incorrect; the shades were of various thickness.

6. **while, although**

   *While* is often used in place of *although* and *since* in place of *because* or for the reason that. Both *while* and *since* have a strong sense of time, and either one at the beginning of a sentence may be ambiguous (or even absurd).

   *although*  
   “While the peaches are grown in Georgia, most of them are eaten in New York.”

   *because*  
   “Since snow fell yesterday, the roads have been slippery.”

   Use a substitute word or phrase: *although, but, whereas, even though, even if* instead of *while*; use *because, for, inasmuch as* instead of *since.*
VERBS AND VERBAL PHRASES WHICH EXPRESS STATEMENT, ASSERTION, BELIEF, etc. ¹

Try using the past tense of one of these words instead of monotonously repeating “said” or “stated” or “reported.”

accept  certify  imply  ratify
acknowledge  cite  indicate  report
admit  conclude  inform  represent
advance  confirm  insist  say
advise  contend  intimate  set forth
affirm  declare  lay stress on  show
agree  direct attention to  maintain  signify
allege  disclose  make known  state
announce  emphasize  mention  substantiate
approve  endorse  point out  suggest
argue  explain  profess  support
assert  express  pronounce  swear
assure  find  propose  tell
aver  give to understand  publish  testify
bear out  hint  put forward  verify

COMMON FAULTS TO AVOID IN WRITING REPORTS

The ability to write a good technical report is an indispensable skill for the natural resource professional, regardless of his field of employment. A good technical report need not be a masterpiece of “fine writing.” However, if it is to serve its purpose, a report must be clear and precise, making no undue demands upon the reader’s clairvoyance or patience.

Good reports do not automatically result from following a set of rules. On the other hand, failure to observe generally accepted rules of good practice will mar any report, sometimes to the point of unintelligibility. (The printed publications of the U.S. Department of Agriculture seldom contain sparkling prose, but they may serve as models of careful, clear exposition.)

The following checklist includes the most common faults found in student reports, arranged in three groups according to their general nature.

I. **Practices Universally Condemned in Standard Formal English.**

1) **Spelling errors.** Misspelled words and typing errors indicate ignorance, carelessness, or both. Don’t be ashamed to use a dictionary.

2) **Errors in grammar.** Principle offenses involve singular subjects with plural verbs (and versa), but there are many other opportunities to go astray. If you are unable to sense whether a given sentence is grammatical, the best practice is usually to rewrite the sentence.

3) **Scientific names.** The generic name and specific epithets should always be underlined (corresponding to italics in type). Do not underline the name or abbreviation of the author.

4) **Unit modifiers.** Elements of a unit modifier should always be connected by hyphens:

   24 14-inch trees  
   refined-turpentine producers  
   bell-shaped curve  
   coarse-textured soil

Neglect of this point usually hinders the reader and sometimes makes a statement ambiguous or ridiculous.

5) **Commas with non-defining clauses.** The omission of commas around non-defining clauses often leads to ambiguity.

   “The pine stands, which had already been thinned twice, were marked for a heavy crown thinning.”
The “which” clause in the illustrative sentence is non-defining; that is, it refers to all the pine stands under consideration. If commas are omitted, the sentence would apply to only such stands as had been thinned twice.

6) “Data”. Although commonly misused as a singular noun, “data” is still plural (singular “datum”) and takes a plural verb (except when used as in this sentence).

“Thus, the data show....” not “the data shows....”

7) “Type” for “type of”. Such usage (as in “this type humus” for “this type of humus”) is increasingly common in colloquial English, but it has a long way to go before it becomes acceptable in formal writing.

II. Practices Not “Wrong” but Not Found in Good American Technical Usage.

1) Contractions. Don’t, can’t, won’t and the like are out of place in formal reports. Use the full forms (do not, etc.).

2) Nouns as adjectives. In moderation, using nouns as adjectives is a common and proper device. However, this practice may be carried too far, leading to awkwardness at best and confusion at worst. Such excesses may be corrected by recasting the sentence in more normal order. For example,

   “From a diesel tractor power efficiency standpoint, adequate engine, track and power train lubrication is essential.”

   One way of expressing the same statement more naturally,

   “Efficient operation of diesel-powered tractors requires adequate lubrication of the engine, tracks, and power train.”

3) Historical present. The use of the present tense to describe actions completed in the past is poor practice in technical forestry reports. “Brown (1940) states....” is an example; Brown may have died or changed his mind since 1940. In general, use the past tense to describe past actions and phenomena, and reserve the present tense for continuing conditions or events. Thus, “Jones (1956) concluded that the selection system is not applicable to Douglas-fir.”

4) Figures. There are varied and often complicated rules on the use of figures or words to express numbers. In general, use figures for all numbers of 10 or more. Figures are also preferred to express precise units; thus, “4.5 feet,” rather than “four and a half feet.”
5) **Capitalizing common names of trees.** This practice is often followed in British publications. In American usage, however, do not capitalize common names of trees, except for elements that are proper nouns. Douglas-fir, Monterey pine, but eastern white pine.

6) **Split infinitives.** There are some instances where a split infinitive is preferable to massive circumlocution; hence, the split infinitive is not to be universally condemned. On the whole, however, split infinitives are awkward and unnatural to English. They can usually be eliminated easily by recasting the sentence.

7) **Overworked dash.** The dash is properly used to mark a sudden break in thought or to set off and intensify a parenthetical phrase or clause. Good technical writing involves the dash sparingly, if at all.

III. **Other Practices That Weaken Technical Writing.**

1) **Poor organization.** A good report must be well organized at every level. The over-all development of the subject must be logical. Major ideas should be organized in paragraphs. Sentences should deal with one statement or a small number of closely related statements.

2) **Excessively long sentences.** At best, excessively long sentences are tedious. They are often virtually impossible to unravel. The best criterion of excessive length is not the number of words, but rather the number, complexity, and relation of the ideas or facts expressed. Most excessively long sentences reflect poor organization.

3) **Poor word order.** The position of words and phrases is particularly important in a language like English which is virtually uninflected. Note the startling effect of faulty construction in the following sentence.

   “There are certain changes that can be logged in the summer with tractors but only in winter when the ground is frozen with horses.”

4) **Excessive use of passive.** The passive voice is a useful resource, but it can be overworked. Its main value in technical writing is to avoid undue repetition of personal pronouns. However, in many instances sentences can be improved in several ways by using the active voice.

   “The seedlings were planted by Brown at a 6-foot spacing.”
   “Brown planted the seedlings at....”
5) **Haste and carelessness.** It is only the exceptionally gifted writer who can produce a good report in one draft. Most of us must devote substantial time to careful revision of what we have written. There may be several “correct” ways to write something, or several words that approach your meaning. By careful revision of a report, you can not only avoid the pitfalls discussed above, but also improve the clarity and effectiveness of your presentation. Some persons find it helpful to read their drafts aloud, with an ear cocked for the tinny sound of poor English. However you do your own revising, there is no substitute for time and care.
PRESENTATION OF BIBLIOGRAPHIES

Bibliographies or lists of references may be presented in several styles, which often vary widely in detail. For this reason, it is easy to overlook the common objectives of all good bibliographies and to do this part of your work in an effective fashion. Whether you write for an organization, for publication, or for a course paper the value of your bibliography will be seriously reduced if it is poorly presented.

The test of a well-prepared bibliography is whether a reader, here or elsewhere, can readily identify and locate the material you cite. Regardless of style, therefore, completeness and accuracy are essential. The best way to achieve these goals is to check every citation directly with the original material. Special bibliographies, abstracting journals, library catalogue cards, and other reference tools frequently contain errors whose perpetuation helps no one. If for any reason you are unable to refer to the original publication, your citation should include a note to that effect.

The essential elements of a good citation are authorship, year of publication, title of the publication, and medium of publication.

1) **Authorship.** Ordinarily, the citation should include the names of all authors exactly as they appear in the original. If many persons have contributed to a book, the name of the editor is sufficient. Avoid crediting “anonymous” where the name of an individual or organization may be used. When possible use names of individuals in preference to the name of an organization. Names must be correctly spelled.

2) **Year of publication.** This should never be omitted. If no printed date appears, you can usually find an approximate date in brackets, furnished by the librarian. Annual reports for one year are often published during the following year. In such cases the year of publication is the date that should appear first. The period covered by the report is commonly a part of the title.

3) **Title of publication.** Titles should not be abbreviated or changed in any other way, except that omissions of non-essential parts of very long titles may be indicated by . . . . In scientific practice, it is customary to lower-case all words in English titles, except for the first word and generic names and other proper nouns.

4) **Medium of publication.** The form in which this is indicated will vary with the nature of the medium.

   a) **Book** citations usually include the edition (of more than one edition has been printed), the name of the publisher, the place of publication, and the number of pages.
b) **Periodical articles** require the name of the journal, the volume number, and the pages on which the article appeared. Well known periodical titles may be abbreviated, preferable according to a standard form, provided that no ambiguity will result. If in doubt, don’t abbreviate. Questions about abbreviation, especially of publication in foreign languages, may be settled by reference to:


When periodicals are not paged continuously throughout an entire volume (as is commonly the case with non-technical journals), indicate the number of the issue in parenthesis following the volume number. Some periodicals do not show a volume or issue number. These must be cited by complete date of issue.

c) **Serial publications.** Bulletins, circulars, research notes, etc. should always be listed as such. In most libraries, serials are catalogued only under the series name.

d) **Republished materials** should be cited from the original source if possible. Additional media of publications may be given, especially if they were more widely circulated than the original.

e) **Unpublished materials.** Manuscripts, theses, dissertations, etc. often pose special problems. The important thing is to indicate clearly the nature of the material and its location.

In preparing citations, bear in mind that the scantier the available bibliographic data for a given publication, the more important it is to include any potentially useful information.

Beyond these basic rules, it is difficult to generalize. Consistency in style within a bibliography is, of course, essential. If you write for publications, you will naturally follow the style used by the publisher. The current style of any journal may usually be checked by examining a few recent issues. For further detailed information, you may wish to consult:


For general use, citations in the bibliography which follows are suggested as models. Note that entries are arranged alphabetically by author. Several publications by a single author are arranged chronologically. Information enclosed in brackets [ ] is that which is supplied purely on the basis of the judgment or knowledge of the person preparing the citation. In other words, this is information which is not supplied by the publication in question.
Specimen Bibliography

Ahlgren, Clifford E. 1952. “A wilderness laboratory in northern Minnesota”. 
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Mehaffay, Robert E. 1947. Who’s wasting what waste? South. Lumberman 175 (2200): 36, 38. [Note issue number (2200); this periodical is not paged continuously.]


