



CR 82-28

State of Wisconsin

DEPARTMENT OF NATURAL RESOURCES

Carroll D. Besadny
Secretary

BOX 7921
MADISON, WISCONSIN 53707

STATE OF WISCONSIN)
DEPARTMENT OF NATURAL RESOURCES) SS

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TO ALL TO WHOM THESE PRESENTS SHALL COME, GREETINGS:

I, Carroll D. Besadny, Secretary of the Department of Natural Resources and custodian of the official records of said Department, do hereby certify that the annexed copy of Natural Resources Board Order No. WR-3-82 was duly approved and adopted by this Department on December 15, 1982. I further certify that said copy has been compared by me with the original on file in this Department and that the same is a true copy thereof, and of the whole of such original.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed the official seal of the Department at General Executive Facility #2 in the City of Madison, this 21st day of February, 1983.

Carroll D. Besadny
Carroll D. Besadny, Secretary

(SEAL)

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5-1-83

ORDER OF THE STATE OF WISCONSIN NATURAL RESOURCES BOARD
RENUMBERING, AMENDING, REPEALING AND
RECREATING, AND CREATING RULES

.....
IN THE MATTER of renumbering sections NR 129.03(10),
(13), (15) and (16), 129.12 and 129.14(2) and (5);
renumbering and amending sections NR 129.03(11), (12), (14)
and (17), 129.13, 129.14 (title), (1), (3), (4), (6) and
129.15; amending sections NR 129.01, 129.02, 129.03(3), (6),
(7), (8) and (9), 129.06, 129.07, 129.08, 129.09, 129.10, and
129.16; repealing and recreating section NR 129.05; and
creating sections NR 129.03(10) and 129.13(5)(c)4. of the
Wisconsin Administrative Code pertaining to the floodplain
and shoreland mapping grant program.
.....

WR-3-82

Analysis Prepared by the Department of Natural Resources

Chapter NR 129, Wis. Adm. Code, was created in 1980, pursuant to s. 87.31, Stats., to establish administrative procedures for awarding state grants to municipalities for the purpose of developing of adequate topographic maps of floodplain and shoreland areas. Maps currently in use by many municipalities lack sufficient topographic detail, creating problems in the administration of floodplain and shoreland ordinances.

The proposed amendments to ch. NR 129 are intended to clarify and improve procedures for awarding mapping grants.

The deadline for the submission of grant applications is changed from December 1st to February 1st in order to allow local budget planning to be finalized by a municipality prior to the submission of a mapping grant application. It is also proposed that mapping grants will be awarded once, instead of twice, each fiscal year, with the grant award date moved to April 1st to facilitate aerial photography in the spring when the highest quality aerial photos can be obtained.

The eligible project area criteria are changed to allow any 10 acre unit (1/64 of a section of the Public Land Survey) to be eligible for mapping if it contains any portion of a previously identified floodplain or shoreland area. Prior to the completion of mapping under a mapping grant, floodplain limits are of such an approximate nature that accurate estimation of the eligible project area under the old criteria was difficult. This change will make it easier for a municipality to lay out a project area and estimate costs and will make it easier for the Department to review grant applications. In addition, it should reduce the need to amend grants to correct errors in the original eligible cost estimates which could have resulted under the old criteria if existing maps were grossly inaccurate.

Minor changes are made on the point system used to rank applicants in order of their priority to receive mapping grants, to clarify eligible costs, and to improve the specifications for map products and grant-eligible activities.

Pursuant to the authority vested in the State of Wisconsin Natural Resources Board by ss. 87.31 and 227.014, Stats., the State of Wisconsin Natural Resources Board hereby renumbers, renumbers and amends, amends, repeals and recreates, and creates rules interpreting s. 87.31, Stats., as follows:

SECTION 1. NR 129.01 is amended to read:

NR 129.01 PURPOSE. The purpose of this chapter is to establish rules under s. 87.31, Stats., for administration of the state grant program to provide financial assistance to counties, cities, and villages for topographical mapping of ~~flatland~~ floodplain and shoreland areas to assist in the establishment and the administration of ~~flatland~~ floodplain and shoreland zoning ordinances.

SECTION 2. NR 129.02 is amended to read:

NR 129.02 APPLICABILITY. This chapter shall apply to all applications submitted for state grants for ~~flatland~~ floodplain and shoreland mapping under s. 87.31, Stats.

SECTION 3. NR 129.03(3), (6), (7), (8) and (9) are amended to read:

(3) "Detailed ~~engineering~~ floodplain study" means a hydrologic and hydraulic analysis to determine the flood flow discharge for a given flood frequency and the resulting in water surface profile(s) profile of a watercourse, lake, or flowage.

(6) "~~Flatland~~ Floodplain" means the land which has been or may be hereafter covered by flood water during the regional flood. The ~~flatland~~ floodplain includes the floodway and the flood fringe.

(7) "Flood fringe" means that portion of the ~~flood-plain~~ floodplain outside of the floodway, which is covered by flood waters during the regional flood; ~~it~~ , and is generally associated with standing water rather than rapidly flowing water.

(8) "~~Flood-plain~~ Floodplain management" means the full range of public policy and action for insuring wise use of ~~flood-plain~~s floodplains. It includes everything from the collection and dissemination of flood control information to actual acquisition of ~~flood-plain~~ floodplain lands and the enactment and administration of codes, ordinances, and statutes for land use in the ~~flood-plain~~ floodplain.

(9) "Floodway" means the channel of a river or stream and those portions of the ~~flood-plain~~ floodplain adjoining the channel required to carry and discharge the flood water or flood flows associated with the regional flood.

SECTION 4. NR 129.03(10) is renumbered NR 129.03(11).

SECTION 5. NR 129.03(10) is created to read:

(10) "High flood damage potential" means the potential for any danger to life or health and any significant economic loss to a structure or building or its contents.

SECTION 6. NR 129.03(11) is renumbered NR 129.03(12) and is amended to read:

~~(11)~~ (12) "Official ~~flood-plain~~ floodplain zoning map" means the ~~map(s)~~ map or maps adopted by a county, city or village, approved by the department, referenced in an official ~~flood-plain~~ floodplain zoning ordinance and used for regulatory purposes.

SECTION 7. NR 129.03(12) is renumbered NR 129.03(13) and is amended to read:

~~(12)~~(13) "Official shoreland zoning map" means the ~~map(s)~~ map or maps adopted by a county, approved by the department, referenced in the county's official shoreland zoning ordinance and used for regulatory purposes.

SECTION 8. NR 129.03(13) is renumbered NR 129.03(14).

SECTION 9. NR 129.03(14) is renumbered NR 129.03(15) and is amended to read:

~~(14)~~ (15) "Shoreland" means lands within the following distances from the ordinary ~~highwater~~ high-water mark of navigable waters: 1000 feet from a lake, pond, or flowage; and 300 feet from a river or stream or to the landward side of the ~~flood-plain~~ floodplain, whichever distance is greater.

SECTION 10. NR 129.03(15) is renumbered NR 129.03(16).

SECTION 11. NR 129.03(16) is renumbered NR 129.03(17).

SECTION 12. NR 129.03(17) is renumbered NR 129.03(18) and is amended to read:

~~(17)~~ (18) "Water surface profile" means a graphic representation of the stage elevation of the water surface throughout a county, city or village based upon a certain flow passing through the river or stream. A water surface profile based upon flows occurring during a regional flood is used in regulating the ~~flood-plain~~ floodplain areas.

SECTION 13. NR 129.05 is repealed and recreated to read:

NR 129.05 ELIGIBILITY FOR A STATE GRANT. (1) SHORELAND MAPPING GRANTS.

The following municipalities are eligible for a state grant for shoreland mapping:

(a) Counties which have a department-approved shoreland zoning ordinance in effect for the shoreland portion of the proposed project area.

(b) Counties which have, in the absence of an approved shoreland zoning ordinance in effect for the proposed project area, enacted a moratorium that prohibits all construction, filling and development in the shoreland portion of the proposed project area.

(2) FLOODPLAIN MAPPING GRANTS. The following municipalities are eligible for a state grant for floodplain mapping:

(a) Counties, cities and villages which have a department-approved floodplain zoning ordinance in effect for the floodplain portion of the proposed project area.

(b) Counties, cities and villages which have, in the absence of an approved floodplain zoning ordinance, enacted a moratorium that prohibits all construction, filling and development in the floodplain portion of the proposed project area.

SECTION 14. NR 129.06 is amended to read:

NR 129.06 ELIGIBLE AND INELIGIBLE COSTS. (1) ELIGIBLE COSTS. (a) The following project costs, whether incurred under contract or in the form of salaries and benefits, are eligible if they are allocatable to the mapping of eligible project areas and are not ineligible under sub. (2):

1. Control survey, including monumentation and identification, both horizontally and vertically, of U.S. public land survey section and 1/4 section corners, centers of sections and correction corners within the eligible project area;

2. Aerial photography;

3. Topographic mapping;

4. Delineation of flood-plain-and floodplain, floodway, and shoreland limits and annotation of other pertinent shoreland and floodplain data on the map sheets; and

5. Printing-of-maps Verification of map accuracy.

(b) Eligible project areas are limited to the following:

1. All-lands-within-the-regional-flood-plain,-plus-or-additional-250-feet horizontally-on-either-side-of-the-flood-plain,-or Any 1/64 section (nominally 10 acres) of the U.S. public land survey or, where another survey system has been used, any equivalent area of up to 10 acres, which contains a floodplain or shoreland area. The eligible project area shall be defined on a 7 1/2 minute series U.S. geological survey quadrangle map. If U.S.G.S. maps are unavailable, any suitable scale map which depicts the U.S. public land survey

may be used. Any 1/64 section divided by a corporate boundary shall be considered eligible if it contains a floodplain or shoreland area.

2. All lands lying within the unincorporated shoreland area of counties. Areas within the jurisdiction of the municipality, including proposed project areas outside of a city or village if the area is subject to:

a. Annexation proceedings prior to the date of application;

b. Extraterritorial zoning; or

c. A county board resolution in which the county agrees to adopt, as part of the county's official floodplain or shoreland zoning ordinance, the maps developed for areas outside of the city or village as a result of the grant.

~~(e) Eligible projects may include:~~

~~1. Costs incurred under contracts or subcontracts.~~

~~2. Costs incurred in the form of salaries and benefits, and the cost of expendable materials to be utilized by the applicant, except costs ineligible under NR 129.06(2)(a)2 or 3.~~

(2) INELIGIBLE COSTS. (a) The following ~~cost~~ costs are ineligible:

1. Costs incurred prior to the state grant offer;

2. Ordinary operating expenses of and indirect costs incurred by the municipality;

~~3. Indirect costs incurred by the municipality;~~

~~4. Costs not incurred for the performance of eligible services for eligible project areas;~~

~~5~~ 3. Costs for which there is no prior department approval of eligibility unless s. NR 129.06(3)(c) applies;

~~6~~ 4. Costs for which payment has been or will be received under another federal ~~or~~ state financial assistance or federal cost sharing or grant program; and

7 5. Costs attributable to the correction of errors or deficiencies in the mapping due to the consultant's failure to comply with contract specifications; and

6. The cost of a detailed floodplain study.

(b) Where 2 feet foot, (or less), contour interval mapping is available, the department may, in its discretion, declare that project area ineligible. In exercising this discretion, the department ~~may take into account the~~ shall consider changes in land development conditions that which may render existing available mapping obsolete.

(3) ALLOCATION OF COSTS. Total project costs may be allocated between eligible and ineligible project areas using one of the following methods:

(a) Unit cost method. When this method is used, individual work items are prorated between eligible and ineligible project areas based on an equal cost per unit area.

Note: The following is an example of the calculation of an individual work item using the unit cost method: If the cost of aerial photography is \$500.00 per square mile (640 acres), and there are 320 acres of eligible project area, the eligible project cost would be $\$500.00 \times (320/640) = \$250.00.$

(b) Project cost method. When this method is used, eligible project costs are based on the total estimated cost of mapping only the eligible project area. Field work or data collection (e.g., ground control survey or aerial photography) outside the eligible project area may be eligible if it is necessary for the completion of the project. Projects using this method are required to submit the consultant's fee schedule showing the breakdown of eligible work items.

(c) Original cost estimates based on either method may be increased, using the grant amendment procedure in s. NR 129.07(2), if it is determined upon

completion of the final maps that the actual eligible project area is significantly larger than the area originally estimated to be eligible.

SECTION 15. NR 129.07 is amended to read:

NR 129.07 GRANT AWARDS. (1) GENERAL. Grant funds available under this program shall be allocated to those projects placed on ~~the project~~ a priority list, as determined by the criteria set forth in ~~section s.~~ NR 129.08, in accordance with the following procedure:

(a) The department shall establish a priority list for each the current fiscal year ~~(July-1-through-June-30)~~ by ~~July-1~~ March 1 for all complete applications ~~received~~ submitted to the department by ~~June-1~~ February 1 of that year.

(b) Grants shall be awarded by ~~September-1~~ April 1 to those applicants ~~with more than 15 total points~~ in the order that they appear on the priority list, based on the total individual points received under the criteria set forth in section s. NR 129.08, ~~in the order that they appear on the priority list, provided that funds have been appropriated for this grant program by August-15. If no funds are appropriated by August-15, grant awards to applicants with more than 15 points shall be made within 30 days of the effective date of such appropriation.~~

~~(c) The department shall revise the priority list by January-1 of each fiscal year to include all complete applications received between June-2 and December-1 as well as those applications received prior to June-2 with 15 points or less under the criteria set forth in section NR-129.08.~~

~~(d) The department shall award remaining grant funds to applicants in the order that they appear on the revised priority list by March-1.~~

~~(e)~~ (c) All completed applications ~~submitted between December-1 and June-1~~ received after February 1 shall be included on the priority list for the next fiscal year.

~~(f)(d)~~ If there are insufficient funds to award grants to all eligible applicants in the a given fiscal year for which the applications were submitted the applicants, those applications not receiving a grant funded will be included on the priority list for the next fiscal year unless the department receives notification that ~~these applicants wish~~ an applicant wishes to withdraw ~~their applications~~ the application. ~~The department may require revised cost estimates for applications carried over to the next fiscal year.~~

~~(2) For Fiscal 1979/80 only (July 1, 1979 to June 30, 1980) Applications must be submitted within 30 days of the date on which these rules take effect in order to be considered for funding in fiscal year 1979/80. A priority list shall be established, using the criteria set forth section NR 129.08, within 30 days of the application deadline. Grants will be awarded to applicants in the order that they appear on the priority list.~~

(2) AMENDMENTS. Requests for additional funding, for the mapping of an eligible project area, necessitated by a change in the scope of work and requests for additional funding under s. NR 129.06(3)(c) may be awarded by the department if unallocated funds remain for the fiscal year in which a grant amendment request is received. Such grant amendments shall be funded on a first-come, first-served basis. If no unallocated funds remain for that fiscal year, a grant amendment request shall be ranked on the priority list for the next fiscal year, according to the number of priority points assigned to the original application under s. NR 129.08.

SECTION 16. NR 129.08 is amended to read:

NR 129.08 CRITERIA FOR PRIORITY RANKING. (1) GENERAL. The intent of this section is to identify as high priority projects those projects with a high flood damage potential, with detailed flood studies completed or in

~~progress, and with mapping that is inadequate to properly administer zoning ordinances.~~ The following criteria shall be used to rank proposed mapping projects for the purpose of determining funding priority:

~~(2) CRITERIA--~~ (a) (1) Type of study or map information available:

1. (a) Detailed engineering floodplain study in progress, 10 points;
2. (b) Detailed engineering floodplain study completed, 8 points;
3. (c) Approximate floodplain study map (e.g., flood hazard boundary map, or flood prone area map) or shoreland map is available, 2 points.

~~(b)~~ (2) Flood damage potential (The estimate for flood damage potential shall be based on the total equalized assessed value of all structures in the ~~flood-prain~~ floodplain area):

1. (a) \$5,000,000 or more, 8 points;
2. (b) \$2,500,000 or more, but less than \$5,000,000, 6 points;
3. (c) \$1,000,000 or more, but less than \$2,500,000, 4 points;
4. (d) \$500,000 or more but less than \$1,000,000, 2 points;
- (e) \$250,000 or more but less than \$500,000, 1 point;
5. (f) Less than ~~\$500,000~~ \$250,000, 0 points.

~~(c)~~ (3) Potential for future development of ~~flood-prain-and/or~~ floodplain or shoreland areas in the project area:

1. (a) High - evidenced by submission of ~~plat(s)~~ a plat or plats, or application for 10 or more building permits in the preceding year 2 years, or proposal for commercial development ~~in-project-area~~, 8 points;
2. (b) Moderate - evidenced by fewer than 10 applications for building permits in the preceding year ~~in-project-area~~ 2 years, 4 points;
3. (c) Low - No ~~application~~ applications for building permits in the preceding year ~~in-project-area~~ 2 years, 0 points.

~~(d)~~ (4) Availability of mapping data from other sources: Where the cost of the project can be reduced by utilizing existing data (e.g., aerial photography or ground control surveys acquired through a previous mapping project), ~~obtained for other purposes (e.g., highway mapping, flood insurance study, wetland mapping, etc.)~~ additional points shall be as follows:

- ~~1.~~ (a) ~~50% or more~~ More than 30% reduction in total project cost, 5 points;
- ~~2.~~ (b) ~~40%~~ 10% to 50% ~~30%~~ reduction in total project cost, ~~4~~ 3 points;
- ~~3.~~ ~~30% to 40% reduction in total project cost,~~ ~~3~~ points;
- ~~4.~~ ~~20% to 30% reduction in total project cost,~~ ~~2~~ points;
- ~~5.~~ ~~10% to 20% reduction in total project cost,~~ ~~1~~ point;
- ~~6.~~ (c) Less than 10% reduction in total project cost, 0 points.

~~(e)~~ (5) Adequacy of available maps:

- ~~1.~~ (a) 10 feet foot or greater contour interval, 4 points;
- ~~2.~~ (b) 3 feet foot through 9 feet foot contour interval, 2 points;
- ~~3.~~ (c) 2 feet foot or less contour interval, 0 points.

~~(f)~~ (6) Joint application by 2 or more municipalities: A single application submitted jointly by 2 or more municipalities which promotes the mapping of a continuous reach of a river or contiguous shoreland area, 2 points per municipality.

~~(3)~~ (7) If 2 or more applicants receive the same total points under the ~~criteria set forth in sub-~~ ~~(2)~~ this section, those applicants shall be ranked on the priority list in the order in which their applications were submitted to the department.

SECTION 17. NR 129.09 is amended to read:

NR 129.09 GRANT APPLICATION. (1) PROCEDURE. (a) Applicants are encouraged to submit applications Applications shall be submitted to the department ~~a minimum of 90 days prior to June 1 or December 1 to allow time-~~

~~for additional information to be submitted in the event that the initial application is found to be incomplete~~ by February 1 to be considered for a mapping grant in the current fiscal year.

(b) A separate grant application must be submitted to the department for each proposed ~~flood plain~~ floodplain or shoreland mapping project. ~~Submissions required for subsequent related projects shall be provided in the form of separate grant applications. If any information required under sub (2) has been furnished with an earlier application, the applicant need only incorporate by reference and, if necessary, revise such information utilizing the previous application.~~

(c) Where For floodplain mapping, where detailed engineering floodplain studies are not available or in progress for all or part of a given watercourse within the ~~municipality~~ project area, a separate application must be submitted for that portion of the municipality where no detailed engineering studies exist. Each application shall be reviewed and ranked separately.

(d) ~~As soon as possible after receipt, the~~ The department ~~will~~ shall review for completeness each application received and shall advise the applicant of any deficiencies, omissions, or errors in the application in a letter acknowledging receipt of the application.

(2) CONTENTS OF APPLICATION. An application for a grant under this chapter shall be made on forms furnished by the department and shall include the following:

(a) Certified copies of the following resolutions of the governing body of the municipality ~~which may be submitted in the form of separate resolutions or in combined resolutions:~~

1. Resolutions to be submitted by all municipalities, including each municipality applying for a grant in a joint application:

‡ a. A resolution designating an authorized representative, and authorizing such representative to apply for a grant under s. 87.31, Stats., and this chapter, on behalf of the municipality.

b. A resolution stating that the municipality will adopt the maps developed as a result of the grant project as official zoning maps, and any necessary ordinance or map amendment, within 6 months after approval of the maps by the department.

c. A resolution stating that the municipality agrees to pay a share of the eligible costs which is equal to the state share.

2. Additional resolutions to be submitted by only those municipalities which will be responsible for either doing the mapping work or for contracting with a mapping consultant for photogrammetric or related services:

‡ a. A resolution stating that the municipality assumes responsibility for the solicitation and selection of a mapping consultant, and the administration of any contracts or subcontracts with the mapping consultant, and any subcontractors.

‡ b. A resolution stating that all eligible services will be performed under the direct supervision of a person who holds a certificate of registration from the state of Wisconsin as a registered land surveyor or professional engineer ~~from the state of Wisconsin.~~

~~4. A resolution stating that the municipality will adopt the map(s) developed as a result of the grant project, and any necessary ordinance or ordinance amendments, within 6 months after approval of the map(s) by the department.~~

~~5. A resolution stating that the municipality agrees to pay, either from~~

~~its own budget or from payments received under another financial assistance program; all project costs not covered by the state share.~~

6 c. A resolution stating that the municipality will insure that all ~~map(s)~~ maps developed as a result of the grant project will meet, or exceed, the specifications set forth in ~~section NR 129.14~~ s. NR 129.13.

(b) A ~~map(s)~~ map showing ~~those areas for which grants funds are requested~~ the proposed project area;

(c) ~~An identification~~ Identification of all the municipalities ~~or other entities that will be~~ involved in the proposed mapping project;

(d) The schedule for completion of specific tasks;

(e) An itemized description of the estimated costs for the project;

(f) Proposed contracts or subcontracts, including the mapping consultant's fee schedule unless the eligible project costs have been allocated on a unit cost basis under s. NR 129.06(3)(a); and

(g) ~~Information necessary to determine priority ranking; and~~

~~(h) Other information needed to determine eligible project scope and costs area or priority ranking, as requested by the department.~~

Note: Application forms may be obtained, at no charge, from the Bureau of Water Grants, Wisconsin Department of Natural Resources, P.O. Box 7921, Madison, Wisconsin 53707 or from any District Office of the Wisconsin Department of Natural Resources.

SECTION 18. NR 129.10 is amended to read:

NR 129.10 LIMITATIONS ON AWARD. Before awarding grant assistance for any mapping project for flood plain or shoreland mapping, the department shall determine that:

(1) ~~That all of the~~ All applicable requirements of ~~section~~ s. NR 129.09 have been met;

~~(2) That such projects are entitled to priority in accordance with section NR 129.08;~~

~~(3) (2) That costs~~ Costs under proposed contracts or subcontracts are fair and reasonable, ~~as determined by the department;~~ and

~~(4) (3) That the flood plain or shoreland mapping project was~~ The work under the proposed contracts or subcontracts has not been started prior to department approval of the proposed contracts or subcontracts. Payment shall not be authorized for costs incurred prior to the approved project start date established in the grant agreement the grant offer.

SECTION 19. NR 129.12 is renumbered NR 129.15.

SECTION 20. NR 129.13 is renumbered NR 129.12 and is amended to read:

~~NR 129.13~~ NR 129.12 MAPPING PROJECT PERIOD. (1) The grant offer is valid for one year after the date of acceptance of the grant offer by the grantee
Completed maps shall be submitted to the department, in accordance with s. NR 129.14, within one year after the date of acceptance of the grant offer
 unless the department extends that period.

~~(1) The department may extend the grant offer for up to 3 years if~~ If such an extension is warranted by the circumstances and ~~if it~~ is requested by the grantee ~~at least 30 days prior to the end of the initial one-year project period,~~ the department may extend the project period for up to 3 additional years.

~~(2) If the work covered by the state grant offer is not completed and approved by the grantee within one year from the time the grant offer is accepted by the grantee, or within an extension period if one has been granted, the state grant offer shall become null and void~~ If the grantee fails to comply with sub. (1), the grantee may not receive any state funds under this chapter. ~~The municipality in question would then have to submit a~~

~~A new grant application, and be ranked under the current priority list, to receive funding for its project~~ for the uncompleted portion of the mapping project would then be required for ranking in the next priority list.

SECTION 21. NR 129.14 (title) and (1) are renumbered NR 129.13 (title) and (1), and (1) is amended to read:

(1) GENERAL. (a) Contracts between the grantee and the mapping consultant, and between the mapping consultant and subcontractors, if any, shall contain conform to the minimum mapping specifications set forth in this section, unless ~~para. (b) or (c)~~ par. (b) is applicable.

~~(b) Within the 7 southeastern Wisconsin counties of Kenosha, Milwaukee, Ozaukee, Racine, Walworth, Washington, and Waukesha, the department encourages applicants to design mapping programs on the basis of the specifications for large scale mapping prepared and published by the southeastern Wisconsin regional planning commission (SEWRPC) in its Technical Report No. 7, "Horizontal and Vertical Survey Control in Southeastern Wisconsin".~~

Note: Within the 7 southeastern Wisconsin counties of Kenosha, Milwaukee, Ozaukee, Racine, Walworth, Washington and Waukesha, the department encourages applicants to conduct mapping projects in accordance with specifications for large scale mapping which have been prepared by the Southeastern Wisconsin Regional Planning Commission (SEWRPC). These specifications may be obtained by writing to the:

~~Note:--This publication may be obtained from the:~~

Southeastern Wisconsin Regional Planning Commission
 916 N. East Avenue
 P.O. Box 769
 Waukesha, WI 53187 - 1607

~~This publication is available for inspection at the offices of the Department, the Secretary of the State and the Revisor of Statutes.~~

~~(e)(b)~~ If the department determines that compliance with the specifications of this section would be impractical in specific cases, it may approve alternative specifications which, in its opinion, represent a reasonable approach to achieving the desired end product.

~~(d) Before any work is undertaken, the consultant and subcontractors, if any, shall meet with representatives of the municipality and the department to discuss the scope of work and the procedures which will satisfy the mapping requirements set forth in this section.~~

~~(e)(c)~~ The map(s) maps, aerial photographs and negatives, and all other data developed as part of the mapping project shall be considered public records and shall be made available for public inspection.

SECTION 22. NR 129.14(2) is renumbered NR 129.13(2).

SECTION 23. NR 129.14(3) is renumbered NR 129.13(3) and is amended to read:

(3) AERIAL PHOTOGRAPHY. (a) Camera. Photography shall be exposed with a 6-inch focal length lens to produce negatives 9x9 inches in size. The camera used and its designated companion film magazine must have been certified by the U.S. geological survey or the manufacturer within 3 years prior to the date of the grant application.

(b) Scale. Photography shall be obtained from a flight height chosen by mapping consultant so that ~~2-foot~~ the specified contour interval accuracy is assured, ~~and shall be such that the negatives will yield a final map scale of 1" = 200' for urban areas and 1" = 400' for rural areas.~~ However, flight height greater than ~~4000~~ 4800 feet above mean ~~flood plain~~ floodplain elevation is unacceptable for use with an optical-mechanical stereoplotter, and flight height greater than 3000 feet above mean ~~flood plain~~ floodplain

elevation is unacceptable with a projection type stereoplotter. Negatives which have a departure from the intended scale of photography exceeding 5% may be rejected.

(c) Overlap. ~~The overlap~~ Overlap shall be sufficient to provide full stereoscopic coverage of the complete area to be mapped. The endlap shall average 60%, with side lap not less than 20% or more than 55%.

(d) Tilt. Tilt of any negative by more than 3°, an average tilt of more than one degree for the entire project, or tilt between any 2 successive negatives exceeding 4° may be cause for rejection.

(e) Crab. Crab in excess of 3° may be cause for rejection of the flight line of negatives or portions thereof in which such crab occurs.

(f) Quality. ~~The photographs~~ Photography shall be clear and sharp in detail and of average uniform density. It shall also be free of clouds, cloud shadows, light streaks, static marks or other blemishes which would interfere with its intended use. All photography shall be taken when the area to be mapped is free of snow, with the water confined to the main low water channel, before foliation, and at such time as to insure a minimum solar angle of 30°.

(g) Contact prints. ~~The contact~~ Contact prints from the vertical negatives shall be printed on double weight, semi-matte paper of suitable contrast.

(h) Photo index. Photo indices shall be prepared by directly photographing on safety base film, at a convenient scale, the assembly of contact prints from all indexed and evaluated prints and shall be reproduced on dimensionally stable polyester base material. The photo index map shall carry a suitable title, scale, and north point.

SECTION 24. NR 129.14(4) is renumbered NR 129.13(4) and is amended to read:

(4) MAP ACCURACY. (a) Contours. 1. 90% Ninety percent of the elevations determined from the solid-line contours of the topographic maps shall have an accuracy with respect to true elevation of $1/2$ contour interval, or better, and no such elevations shall be in error by more than one contour interval ~~based-on-a-2-foot-contour-interval~~.

2. In each particular area where the intermediate contours have been omitted due to the steepness of the ground slopes, and only the index contours are delineated on the maps, the accuracy stipulations apply to the contour interval of the index contours.

3. In densely wooded areas where heavy brush or tree cover fully obscures the ground and the contours are shown as dashed lines, the contours shall be plotted as accurately as possible from the stereoscopic model, while making full use of spot elevations obtained during ground control surveys and all spot elevations measured photogrammetrically in places where the ground is visible.

(b) Spot elevations. 90% Ninety percent of all photogrammetrically determined spot elevations shall have an accuracy with respect to true elevation of $1/4$ contour interval, or better, and no such elevations shall be in error by more than $1/2$ contour interval ~~based-on-a-2-foot-contour-interval~~.

(c) Coordinate grid lines. Each coordinate grid line or tick shall be plotted on the finished map sheets within $1/100$ of an inch of the true grid values.

(d) Horizontal control. Each horizontal control station and section corner shall be plotted on the finished map sheets within $1/100$ of an inch of its true position as expressed by the adjusted coordinates computed for the point.

(e) Planimetric features. 1. 90% Ninety percent of all well-defined planimetric features on the photographs shall be plotted so that their position on the finished maps shall be accurate to within 1/40 of an inch of their true coordinate position and no point shall be misplaced on the finished map by more than 1/20 of an inch from its true position.

SECTION 25. NR 129.14(5) is renumbered NR 129.13(5).

SECTION 26. NR 129.13(5)(c)4. is created to read:

4. Floodplain, floodway and shoreland limits shall be shown on the finished map sheets along with other pertinent information related to the mapping project.

SECTION 27. NR 129.14(6) is renumbered NR 129.13(6) and is amended to read:

(6) MAP MANUSCRIPT. All drafting shall be of professional quality. ~~The map shall be no larger than 24x36 inches~~ on dimensionally stable polyester base ~~0.007-inch thick~~ with emulsion on back and matte finish. The title block shall contain a graphic scale, date, type of map, name of municipality, and north point, the source and date of floodplain and shoreland information represented on the map sheets, and the following statement: "This map was paid for, in part, with a Floodplain and Shoreland Mapping Grant from the State of Wisconsin Department of Natural Resources." The manuscript shall be prepared in such a manner that future modification to ~~flood plain/floodway~~ floodplain or shoreland limits can easily be made.

SECTION 28. NR 129.15 is renumbered NR 129.14 and is amended to read:

~~NR-129.15~~ NR 129.14 MAP APPROVAL. ~~(1)~~ After the mapping has been completed, and approved by the grantee, the grantee shall submit ~~one-polyester-stable-base-film-copy~~ 3 paper print copies of the ~~final~~ finished ~~map(s)~~ maps and map index and ~~one-copy~~ 3 copies of the ground vertical control report to the department for approval. ~~The department shall make a decision within 30 days.~~

~~(2)-The-grantee-shall-be-responsible-for-insuring-that-the-final-product meets-the-specifications-of-the-contract.--The-cost-of-the-correction-of errors-or-deficiencies-will-not-be-granted-eligible.~~

SECTION 29. NR 129.16 is amended to read:

NR 129.16 ~~FAILURE-TO-ADOPT-MAP~~ ORDINANCE ADOPTION OR AMENDMENT PERIOD. If the grantee fails to adopt the ~~map(s)~~ maps developed as a result of the grant project as the official ~~flood-plan~~ floodplain or shoreland zoning map maps, or fails to adopt any necessary ordinances or amendments within 6 months after the department has approved the ~~map(s)~~ maps, without adequate justification as determined by the department, the grantee shall may not receive any further state funds under ~~the-flood-plan-and-shoreland-mapping-grant-program~~ this chapter and shall be required to reimburse the department for state funds already received under ~~the-program~~ this chapter.

The foregoing rules were approved and adopted by the State of Wisconsin Natural Resources Board on December 15, 1982.

The rules contained herein shall take effect as provided in section 227.026(1)(intro.), Stats.

Dated at Madison, Wisconsin February 21, 1983

STATE OF WISCONSIN
DEPARTMENT OF NATURAL RESOURCES

By Carroll D. Besadny
Carroll D. Besadny, Secretary

(SEAL)