

THE ALBUQUERQUE METROPOLITAN ARROYO FLOOD CONTROL AUTHORITY
RESOLUTION NO. 1980-15
DRAINAGE POLICY

WHEREAS, authority for the Board of Directors to adopt, amend, repeal, enforce and otherwise administer under the police power reasonable resolutions, rules, regulations and orders pertaining to properties within the territory of Authority of any public body or other person (other than the Federal Government) reasonably affecting the collection, channeling, impounding or disposition of storm and flood waters is contained in the Arroyo Flood Control Act; and

WHEREAS, the Board of Directors has, with due consideration, determined the following regulation to be necessary to execute the legal duties imposed upon the Authority by its enabling legislation and by its contractual obligations to the Federal Government.

NOW, THEREFORE, BE IT RESOLVED: That the Board of Directors of the Albuquerque Metropolitan Arroyo Flood Control Authority does hereby adopt the following Regulation:

Section 1 GENERAL STATEMENT. The Authority recognizes that urbanization changes hydrology. These changes may necessitate channel improvements, detention or diversion of stormwater runoff to protect people and property.

In general, both public and privately-built storm drainage facilities will be designed to accommodate the 100-year storm. However, the Board of Directors of the Authority reserves the right to require a more conservative design where the consequence of failure could be severe. Interior storm drainage facilities, such as storm sewers, streets and detention basins with less than 10 acre feet capacity, may be designed to accommodate less than the 100-year storm, in accordance with criteria adopted by the City Engineer within Albuquerque, and by the Executive Engineer within other areas.

Planning and design of storm drainage facilities shall be based on official City of Albuquerque/County of Bernalillo population and development projections and guidelines.

The Authority excludes from this Regulation the area generally known as the Valley because there appear to be no definable arroyos located there. However, the exclusion does not imply flooding and drainage problems do not exist there.

The Authority recognizes variations in rainfall, topography, soils, land values, and intensity of development. Drainage management plans and studies should reflect these differences.

The Authority commits itself to continue to update and expand hydrology, maps, studies and information required for drainage management planning.

The Authority commits itself to continue cooperating with other governmental agencies and with private developers to the end that urbanization within its territory proceed in a responsible manner without unnecessary economic burden.

The Authority plans to develop and update semiannually a schedule of Authority funded projects. The Authority encourages other agencies to do likewise.

The standards set forth in this Regulation are intended to protect the capacity of existing watercourses, in insure adequate space to convey the design storm under urbanized development, and to prevent the capacity of existing and planned drainage facilities from being exceeded during the storm for which the facilities were designed.

Section 2. DEFINITIONS. Unless the context otherwise requires, in this Regulation:

A. "Authority" means the Albuquerque Metropolitan Arroyo Flood Control Authority.

B. "Watercourse" means any river, creek, arroyo, canyon, draw, or wash, or any other channel having definite banks and bed with visible evidence of the occasional flow of water.

C. "Storm drainage facility" means an arroyo, watercourse, canal, channel, street, storm sewer, dam, diversion, dike or any other natural or man-made feature used in the collection, channelling, impounding, or disposition of storm surface waters, or a combination thereof.

D. "Capacity of a storm drainage facility" means its ability to intercept and convey the storm waters that would flow therein if a 100-year storm occurred over the area drained by such facility when the basin is fully developed in accordance with the current comprehensive plan for the area. Planned public storm drainage facilities may be assumed as in place in determining capacity, provided that construction funds are available and have been appropriated, design has been progressed to the point where capacity can be ascertained with reasonable certainty, and advertising for bids is scheduled. Storm water carrying capacity of streets and storm sewers shall be determined by the City of Albuquerque and the County of Bernalillo in their respective jurisdictions.

E. A "100-year storm" means the 100-year precipitation as shown in NOAA Atlas 2, "Precipitation - Frequency Atlas of the Western United States, Volume IV - New Mexico." Appendix A, which is derived from the NOAA Atlas, may be used as an aid in calculating precipitation intensity of 100-year and

more frequent storms. In determining the rate of storm water runoff or volume of storm water to be expected from a 100-year storm, the analysis procedure to be used shall be any method which is in accord with generally accepted principles of hydrology, except in areas where a drainage management plan has been adopted, in which latter event the analysis procedure shall be that used in such plan. The "rational method" may be used for drainage areas containing less than 320 acres.

F. A "major arroyo" is that portion of an arroyo whose watershed above the point exceeds 320 acres or that portion of an arroyo which would be a major arroyo had it not been for a detention or diversion structure built or authorized by public authority.

G. "Executive Engineer" means the Executive Engineer of the Authority.

H. "Designee" means any person designated under the provisions of Section 9 hereof to act on behalf of the Executive Engineer.

Section 3. Except as permitted by this Regulation, the natural topography, drainage pattern and perviousness of any lot, tract or parcel of land within the territory of the Authority may not be altered by grading, filling, excavating or subdividing, or by the construction of pavement, streets, buildings or other structures.

Section 4. Alteration as described in Section 3 is permitted if, in the event a 100-year storm occurs upon such lot, tract, or parcel, and the land draining thereinto, the following requirements will be met:

A. The storm surface waters emanating from higher lands and draining through or along such lot, tract or parcel in a storm drainage facility will be able to pass through such property in such storm drainage facility

at a rate of flow, velocity, quantity and location as does not exceed the capacity of storm drainage facilities on such property and downstream; or, in the alternative, will be able to pass through such property in such drainage facility at a rate of flow, velocity, and location of discharge reasonably similar to that which existed before such alteration.

B. The storm water runoff from such lot, tract, or parcel will discharge from such property into, and in such manner as does not exceed the capacity of, storm drainage facilities downstream, or, in the alternative, will discharge from such property at a rate of flow, velocity and location reasonably similar to that which existed before such alteration.

C. If Paragraphs 4 A and 4 B are otherwise complied with and if no hazard is created and no damage will ensue, storm water runoff may be concentrated and diverted so that it enters a storm drainage facility at a different location. Storm drainage facilities satisfactory to public authority shall be designed and built for such concentration or diversion. If diversion or concentration crosses private lands, an easement satisfactory to public authority shall be furnished.

D. Provided that downstream facilities are of adequate capacity and that public safety will not be impaired, compliance with some or all of the provisions of Paragraph 4 B may be waived by the Executive Engineer or his Designee if one of the following situations exists:

(1) Compliance would be impractical by reason of the size, soil perviousness or grade of such lot, tract, or parcel.

(2) Permanent zoning and construction are entirely for single family detached housing.

(3) The lot, tract, or parcel is five acres or less in area and the composite "C" factor, as used in the rational formula) is less than 0.5.

(4) An interim drainage solution will provide adequate safeguards pending completion of permanent protection in accordance with this regulation.

E. Determination of reasonable similarity, satisfactory diversion facilities and easements, and other decisions or waivers permitted or required herein shall be made by the Executive Engineer or his Designee in accordance with locally applicable general engineering and public safety practices.

F. The standards set forth in Paragraph A are intended to protect existing watercourses and floodplains from encroachment. The standards set forth in Paragraph B are intended to prevent the allowable capacity of existing watercourses, floodplains and storm drainage facilities from being exceeded. Any alteration governed by this Regulation shall be performed in compliance with Paragraph A and, except where waived, in compliance with Paragraph B. Design runoff shall be computed by a registered professional engineer competent in surface hydrology and drainage on the basis of the alteration and improvements to be constructed on such lot, tract, or parcel, in accordance with the requirements, intent, and standards of this Regulation.

Section 5. All grading, filling, excavating, and construction hereafter performed by State or local governmental bodies, agencies, or departments within the territory of the Authority, except the area described in Section 10 hereof, shall comply with the standards established by this Regulation.

Section 6. Failure of any State or local government body, agency, or department to incorporate, administer, or enforce any standard or requirement contained in this Regulation shall not excuse any person, firm, or corporation, or any public body from compliance with any standard or requirement contained in this Regulation. Compliance with this Regulation will not relieve any person or public body from any legal duty to pass and discharge storm water runoff in a manner which will not cause damage to the person or property of another.

Section 7. All applications for plat, replat, development plan, or subdivision approvals filed with any local government subdivision, agency, board, officer, or commission within the territory of the Authority shall have attached thereto the following:

A. A contour map of the lands under consideration prepared under the direction of and signed by a registered surveyor or professional engineer showing the existing structures and pavement, and the existing elevation above mean sea level of the lowest point on such lot, tract or parcel, and relative elevations of all land and improvements which may affect drainage within 100 feet thereof. Vertical intervals for contour maps shall not exceed the following: One foot for slopes under 1%; two feet for slopes between 1% and 5%; five feet for slopes in excess of 5%. The scale shall not exceed 200 feet to one inch; and

B. A drainage report and plan prepared under the direction of and signed by a registered professional engineer conforming to this Regulation, including such reference to and drawings of existing storm drainage facilities and drainage areas as may be appropriate to illustrate adequately such report and plan. Such report and plan must clearly identify and locate each watercourse situate within or along such lot, tract or parcel, and depict and compute the area draining into such property. The report and plan must include provisions for mitigating soil erosion during and

after construction, a preliminary design of proposed drainage facilities, and indicate right of way to be dedicated for drainage. Personal inspection of the land by the engineer is required, along with a statement as to whether it appears that grading, filling, or excavation has occurred thereon since the contour map was prepared; and

C. A written agreement between the owner of the lands being platted or developed, and the Authority, that no grading, filling, excavating, or other alteration will be performed except pursuant to a grading plan prepared under the direction of and signed by a registered professional engineer, architect or surveyor, where a major arroyo or its 100-year floodplain will be encroached upon. The grading plan shall be approved by the Executive Engineer or his Designee and shall depict the proposed alteration, including the finished elevations of the area to be graded, the paved areas, building pads, streets, drainage facilities, and other structures. Such grading plans and site plans shall incorporate by reference and comply with the provisions of the report and plan required by Paragraph 7 (B) hereof.

Section 8. No application for a building permit, where the lot, tract, or parcel is located wholly or partly within or along a watercourse or 100-year floodplain, or where the combined area of such lot, tract, or parcel and the lands draining into such lot, tract, or parcel exceeds 20 acres, may be approved by any local or State government agency, board, officer, employee, or commission, unless the documents described in and prepared in accordance with Section 7 of this Regulation have been incorporated by reference in, and performance of the alteration in the manner set forth therein is made a condition of approval of, such building permit issued by the State or local governmental department or agency having jurisdiction thereof.

Any watercourse or 100-year floodplain altered or encroached upon in violation of this Resolution or pursuant to a building permit issued in violation of this Section shall be restored to its original condition by the owner or his contractor upon the demand of the Authority, and in event such restoration is not promptly performed, the Executive Engineer is authorized to seek injunctive and other relief.

Section 9. The Board of Directors of the Authority shall, whenever requested, authorize such persons as may be designated by the Chief Executive Officer of any State or local governmental body, agency or commission to act in the name, place and stead of the Executive Engineer of the Authority, in granting or denying approvals or waivers under this Regulation, provided that:

A. Each person so authorized shall be a registered professional engineer, competent in surface hydrology and drainage, in the full time employment of the cooperating entity; and

B. An agreement has been entered into between the Authority and such cooperating entity under the provisions of Section 72-16-22, N.M.S.A., 1978 and the Joint Powers Agreement Act; and

C. Copies of all decisions of such Designee and of drainage plans and reports approved, modified or rejected by him will be furnished to the Executive Engineer at the time of decision thereof; and

D. Such Designee and the Executive Engineer shall coordinate their respective drainage related activities.

Section 10. This regulation will have no effect or operation within the following described area (see sketch map, Appendix B):

Known as being that area within Bernalillo County, New Mexico enclosed by the following boundary:

Commencing at the intersection of the south boundary of the Sandia Pueblo with the east right of way boundary of the North Diversion Channel;

thence southerly along the east boundary of the North Diversion Channel to its intersection with the west right of way boundary of Interstate Route 25;

thence southerly along the west boundary of Interstate Route 25 to its intersection with the east right of way boundary of the South Diversion Channel;

thence southerly along the east right of way boundary of the South Diversion Channel to its intersection with the east right of way boundary of South Second Street;

thence southerly along the east right of way boundary of South Second Street to its intersection with the north boundary of the Isleta Pueblo;

thence westerly along the north boundary of the Isleta Pueblo to its intersection with the west right of way boundary of the Isleta Drain of the M.R.G.C.D.;

thence northerly along the west right of way boundary of the Isleta Drain to its intersection with the north right of way boundary of Bridge Boulevard;

thence westerly along the north right of way boundary of Bridge Boulevard to its intersection with the west right of way boundary of the Arenal Canal of the M.R.G.C.D.;

thence northerly along the west right of way boundary of the Arenal Canal to its intersection with the west bank of the Rio Grande;

thence northerly along the west bank of the Rio Grande to its intersection with the west right of way boundary of the Corrales Main Canal of the M.R.G.C.D.;

thence northerly along the west right of way boundary of the Corrales Main Canal to its intersection with the Sandoval County line;

thence easterly along the Sandoval County line to the west bank of the Rio Grande;

thence southerly along the west bank of the Rio Grande to its intersection with the south boundary of the Sandia Pueblo;

thence easterly along the south boundary of the Sandia Pueblo to the place of beginning.

Section 11. No plan, plat, or replat for the development or subdivision of any land within the territory of the Authority (excepting the area deleted by Section 10) may be approved by any local governmental body or political subdivision without the prior written approval endorsed thereon by the Executive Engineer or his Designee. Such approval shall be granted if the documents required by and prepared in accordance with Section 7 of this Regulation have been incorporated in, and performance of the alternation in the manner set forth therein is made a condition of approval of, such plan, plat, or replat by the local governmental body or political subdivision having jurisdiction thereof.

No summary plat within the territory of the Authority may be approved by any local governmental official without the prior written approval endorsed thereon by the Executive Engineer or the Designee. Such approval shall be granted only if drainage right of way adequate to pass the 100-year storm for major arroyos is granted or dedicated to public authority.

All right of way required to preserve an existing arroyo or to implement an approved drainage plan shall, to the extent the same is located within the 100-year floodplain, be granted or dedicated to public authority without compensation as a condition of approval. Where the right of way

required for implementation of an approved drainage plan occupies less land than that required to preserve an existing arroyo, the entire amount of right of way required to preserve the existing arroyo shall be granted until actual implementation of the plan, and there shall be incorporated in the instrument of grant or dedication appropriate reverter provisions to return the excess land to the grantor or dedicator upon construction of approved drainage plan improvements. The right of way required to preserve an arroyo is that land constituting its 100-year floodplain.

Section 12. Subject to availability of funds, public authority shall pay for major detention dams, major diversions, and crossing structures for major arterials and collection streets. Additionally, public authority may elect to pay for or cost-share other selected features of drainage management plans.

Under existing resolutions and codes, land alteration within the 100-year floodplain is forbidden without written approval of public authority, and modification of arroyos, including borrowing, filling, or dumping, is forbidden without written approval by the Authority. Where the landowner desires changes to a 100-year floodplain or an arroyo, the cost of such modification or alteration, including entrance and exit structures and right of way acquisition, shall be paid for by the owner, except where a public project which would accomplish such modification or alteration has been authorized and funded. Design shall be approved and construction monitored by public authority.

Under appropriate circumstances, the Board may authorize the prosecution by the Authority of eminent domain proceedings to acquire right of way for drainage improvement plans which will be implemented at private expense, but owned by public authority.

Section 13. The Executive Engineer is directed to provide copies of this Regulation to all state and local governmental boards, agencies, officers, and commissions having jurisdiction to construct improvements, to issue building permits, or to review and approve subdivision plats within the territory of the Authority; to make available copies of this Regulation to all persons, firms and corporations requesting the same; to seek the cooperation of all State and local governmental boards, agencies, officers, and commissions in the application and enforcement of this Regulation; and to institute such legal proceedings, including legal proceedings against such persons, firms and corporations who are in non-conformance to the standards and requirements of this Regulation, as may be necessary and appropriate to enforce this Regulation. Any storm drainage facility or floodplain that is altered in non-conformance to this Regulation shall be restored to a condition which will comply with Section 4 (A) hereof by or at the expense of the person, firm or corporation who made such alteration, and the Executive Engineer is directed to institute such legal proceedings as may be necessary to accomplish such restoration.

Section 14. Warning and Disclaimer of Liability: the degree of drainage control intended to be provided by this Regulation is considered reasonable for regulatory purposes and is based on engineering and scientific methods. Larger high intensity storms may occur on occasion within any drainage area and flood hazards may be increased by man-made or natural causes such as blockage or failure of storm drainage facilities. This Regulation does not imply that the structures regulated herein nor those areas which drain from the structures regulated will always be totally free from excess drainage, flooding, or flood damages. This Regulation shall not create a liability on the part of or a cause of action against

the Authority or any other political subdivision of New Mexico or any officer or employee thereof or any other person, firm, or corporation for any flood or drainage damages that may result from reliance on this Regulation.

Section 15. Every land use regulated under the provisions of this Regulation which shall be conducted or performed without compliance with this Regulation shall be a public nuisance and the same may be enjoined and the maintenance thereof may be abated by an action at suit of the city or county in which it is located, or by the Authority, or by any citizen thereof.

Section 16. The Executive Engineer of the Authority or his Designee shall, within fourteen (14) calendar days after the submission to him of a request in writing for the approval of a plat, development plan or exemption, approve or deny the request and mail a copy of his decision to the applicant. If the request is denied, the reasons for such denial shall be stated in writing. Any applicant aggrieved by a decision of the Executive Engineer or his Designee or absence of such decision, may appeal such decision to the Technical Standards Committee of the Authority. Such appeal shall be made by notice of appeal in writing addressed to the Chairman of the Technical Standards Committee and delivered to the office of the Authority within 30 days after the date of copy of the decision was mailed to the applicant. The Chairman of the Technical Standards Committee shall notify the applicant and the Executive Engineer, and his Designee, if any, of the date, time, and place of the appeal hearing at least five days prior to the hearing date. Such hearing shall be conducted not earlier than 10 days nor later than 30 days after the filing of the notice of appeal. At the hearing, the Technical Standards

Committee may consider such facts, exhibits, and engineering principles as may be presented by the applicant or the Executive Engineer or his Designee, or of which the members may have knowledge or experience, and may affirm, reverse or modify the decisions appealed from, and attach as conditions to their decision such requirements as in their opinion may be necessary or appropriate to safeguard persons and property from storm water runoff. Each decision of the Technical Standards Committee shall be in writing and shall state reasons therefor. A copy of the decision shall be promptly mailed to the applicant and to the Executive Engineer, and his Designee. The Executive Engineer or his Designee and applicant aggrieved by any decision of the Technical Standards Committee may appeal such decision to the Board of Directors of the Authority. Such appeal shall be requested by notice of appeal in writing addressed to the Chairman of the Board of Directors and delivered to the office of the Authority within 30 days after the date a copy of the decision was mailed to the applicant. Such appeal shall be heard at the first meeting of the Board of Directors held at least 10 days after receipt of such notice of appeal. The Board of Directors may affirm, reverse, or modify the decision of the Technical Standards Committee.

Section 17. There is hereby created a Technical Standards Committee, consisting of five members who shall be appointed by the Board of Directors of the Authority and who shall serve without pay. Two members shall serve for a term ending August 1, 1981, one member shall serve for a term ending August 1, 1982, and two members shall serve for terms ending August 1, 1983. Subsequent terms shall be for three years. Four of such members shall be registered in this State as professional engineers, be competent in the science of surface water hydrology, and have experience in solving surface

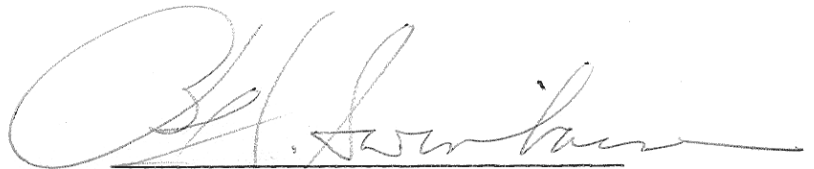
drainage problems. The members shall select one member to serve as Chairman, and their decisions shall be by majority vote of the members attending a hearing. A quorum shall consist of three members. The Technical Standards Committee shall hear and determine all appeals as provided by Section 16 of this Regulation and shall from time to time recommend modifications of this Regulation to the Board of Directors. The Executive Engineer shall provide such facilities, supplies, and services, including postage, stationery and secretarial assistance, as may be required by the Committee.

Section 18. If any part or application of this Regulation is held invalid, the remainder of the regulation, or its application to other situations or persons, shall not be affected.

Section 19. This Regulation shall take effect immediately.

Section 20. Resolution 1972-2 is hereby repealed, but such repeal shall not affect rights, duties, or liabilities accrued under those portions of Resolution 1972-2 which have been re-enacted herein.

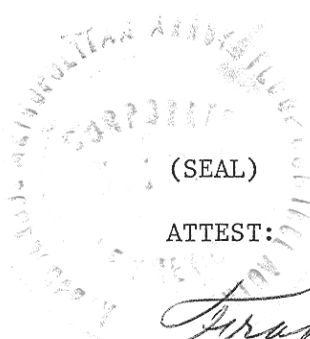
PASSED, APPROVED AND ADOPTED THIS 25th day of November,
1980.



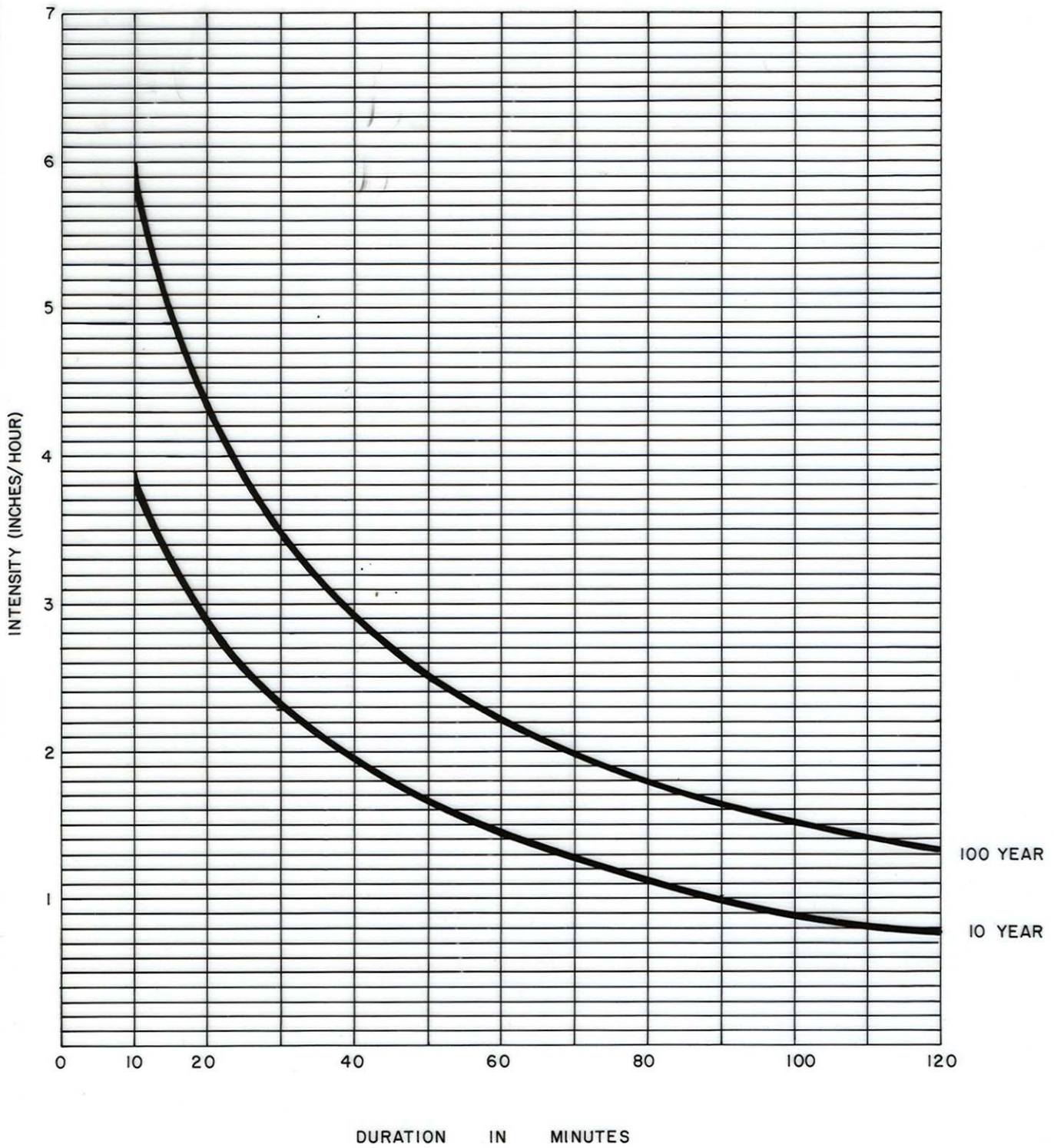
Chairman, Board of Directors
Albuquerque Metropolitan Arroyo
Flood Control Authority

(SEAL)

ATTEST:



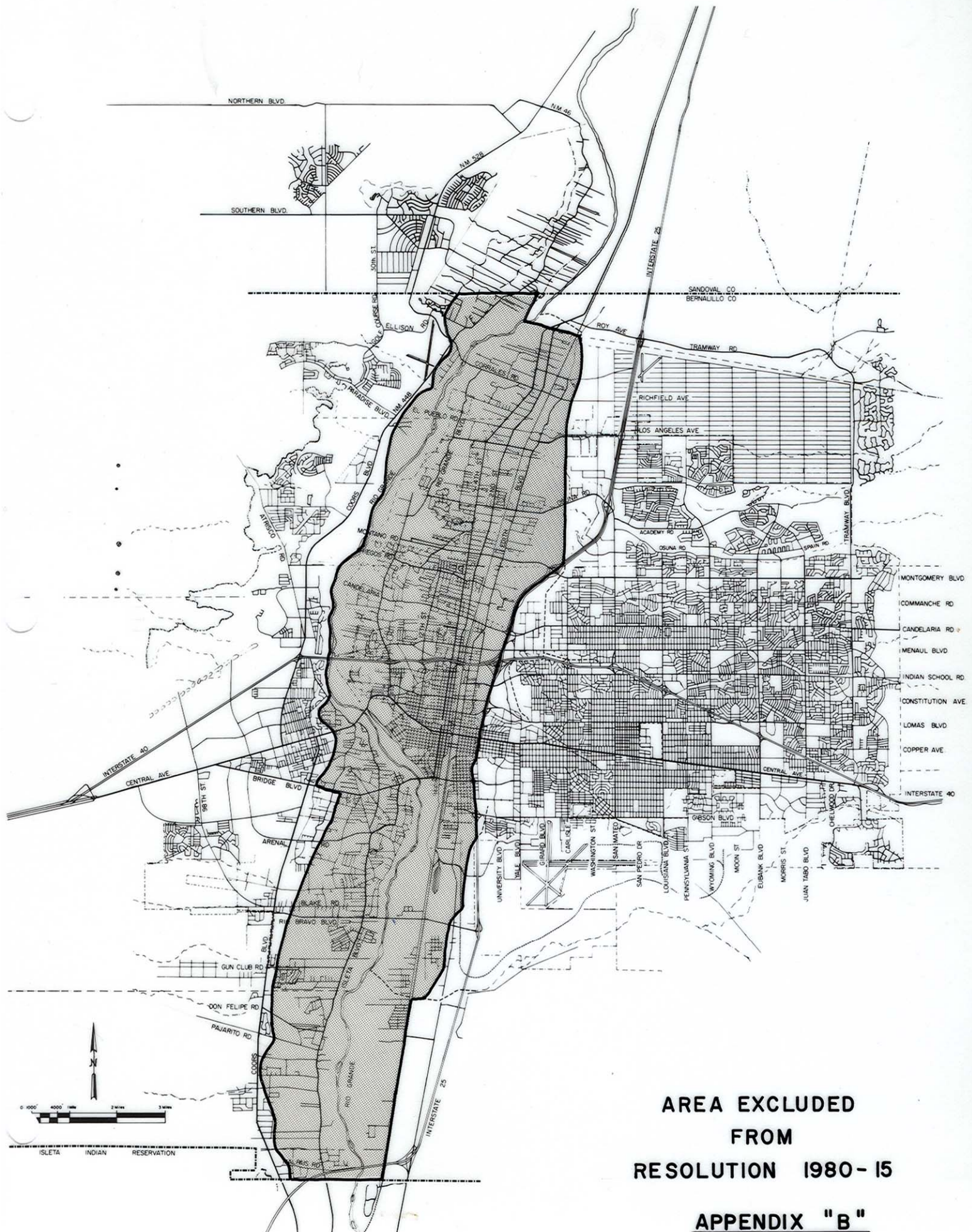
Frances M. McCoy
Secretary



NOTE:
 CURVE IS BASED ON DATA CONTAINED IN NOAA ATLAS 2,
 DATED 1973.

INTENSITY/ DURATION
 FREQUENCY CURVE
 ALBUQUERQUE, N.M.

APPENDIX "A"



**AREA EXCLUDED
FROM
RESOLUTION 1980-15**

APPENDIX "B"