

CHAPTER 72  
CRITERIA FOR APPROVAL  
[Prior to 7/1/83, INRC[580] Ch 5, Div. III to V]  
[Prior to 12/3/86, Water, Air and Waste Management[900]]

DIVISION I  
SPECIAL CRITERIA FOR VARIOUS TYPES OF FLOOD PLAIN DEVELOPMENT

This division of these rules establishes administrative criteria which implement certain statutory criteria, policies, and principles in Iowa Code sections 455B.262, 455B.264, 455B.275 and 455B.277. The specific requirements in these rules must be met for approval of a project or activity in a flood plain or floodway. Additionally, the project or activity must satisfy all of the statutory criteria which sections 455B.262, 455B.264, 455B.275 and 455B.277 require the department to consider. Where a project or activity will result in effects which the department must by statute consider but which are not governed specifically by these rules, the department shall review such effects on a case-by-case basis to determine whether the project or activity meets the statutory criteria.

**567—72.1(455B) Bridges and road embankments.** The following criteria shall apply to the construction, operation, and maintenance of bridges and road embankments.

**72.1(1) Bridges and road embankments affecting low damage potential areas.** For bridges and road embankments affecting floodway or flood plain areas having a low flood damage potential, the following criteria will apply:

*a. Backwater Q50.* The maximum allowable backwater for Q50 and lesser floods is limited to 0.75 foot.

*b. Backwater Q100.* The maximum allowable backwater for Q100 is limited to 1.5 feet.

*c. Freeboard.* The minimum freeboard for low superstructure horizontal bridge members above Q50 is 3 feet.

**72.1(2) Bridges and road embankments affecting moderate damage potential areas.** For bridges and road embankments affecting floodway or flood plain areas occupied by buildings or building complexes having a moderate flood damage potential, the following criteria will apply:

*a.* The maximum allowable backwater for Q100 is limited to 1.0 foot.

*b.* The criteria specified in 72.1(1)“a” and “c.”

**72.1(3) Bridges and road embankments affecting high or maximum damage potential development.** For bridges and road embankments affecting floodway or flood plain areas occupied by buildings or building complexes having a high or maximum flood damage potential, the following criteria will apply:

*a.* Backwater effects are to be minimized for all stages which affect maximum or high flood damage potential buildings or building complexes or for all stages which would tend to reduce the level of protection of certain flood control works, unless acceptable remedial measures are provided or such buildings are removed or the uses relating to human occupancy are prohibited.

*b.* In no case shall the criteria specified in 72.1(1)“a” and “c” and 72.1(2)“a” be exceeded.

**72.1(4) Bridge and channel change.** For bridges and culverts involving channel changes on the floodway of any stream draining at the location of the channel change between 10 and 100 square miles whereby either (i) more than a 500-foot length of the existing channel is being altered or (ii) the length of existing channel being altered is reduced by more than 25 percent, the maximum allowable backwater shall correspond to the limits permitted in 72.1(1), 72.1(2), 72.1(3) or 72.1(5) depending upon the associated damage potential.

**72.1(5) Culverts.** The maximum allowable backwater at culvert inlets shall correspond to the limits permitted in 72.1(1), 72.1(2), or 72.1(3) depending upon the damage potential associated with the affected area. In the case of replacement culverts the backwater shall not exceed that created by the culvert or waterway crossing being replaced or that specified in 72.1(1), 72.1(2), or 72.1(3) depending upon the associated damage potential, whichever is greater.

**72.1(6) Road embankments.** The criteria listed in 72.11(455B) for miscellaneous flood plain construction projects shall apply to road embankments located on the flood plain but not crossing any stream or river channel.

**72.1(7) Temporary channel obstructions.** Temporary stream crossings and other temporary obstructions usually constructed, operated, and maintained during the construction phase of another flood plain construction project shall meet the following criteria:

*a. Low flow.* Said structures will provide for the passage of the prevailing flow in the stream or river.

*b. Flood flow.* Said structure shall be designed to fail or otherwise operate in the event of flooding so as to prevent premature overbank flow, or meet the backwater criteria indicated in 72.1(1), 72.1(2), or 72.1(3).

**72.1(8) Emergency.** Repairs or temporary construction required to maintain the operation of a bridge, roadgrade or culverts in time of emergency need not be submitted for prior department approval. Plans of such emergency or temporary construction shall be submitted to the department for review after the event causing the emergency has passed.

**567—72.2(455B) Channel changes.** The following criteria shall apply to channel changes.

**72.2(1) Percent reduction in length.**

*a. Streams draining over 100 square miles.* For streams (other than protected streams) draining more than 100 square miles, no more than a 10 percent reduction in the original length of the existing channel through any contiguous parcel(s) of the applicant's(s') property will be allowed.

*b. Rural streams draining 10 to 100 square miles.* For streams (other than protected streams) draining between 10 and 100 square miles in rural areas, no more than a 25 percent reduction in the original length of the existing channel through any contiguous parcel(s) of the applicant's(s') property will be allowed.

*c. Urban streams draining 2 to 100 square miles.* For streams (other than protected streams) draining between 2 and 100 square miles in urban areas, no more than a 25 percent reduction in the original length of the existing channel through any contiguous parcel(s) of the applicant's(s') property will be allowed.

*d. Protected streams.* For protected streams no channel changes will be allowed, because of actual or potential significant adverse effects on fisheries, water quality, flood control, flood plain management, wildlife habitat, soil erosion, public recreation, the public health, welfare and safety, compatibility with the state water plan, rights of other landowners, and other factors relevant to the control, development, protection, allocation, and utilization of the stream. Protected stream status does not prohibit bank stabilization measures; tree maintenance or removal; maintenance or installation of tile outlets; machinery crossings, including concrete drive-throughs and bridges; boat or canoe ramps; or other structures permitted by the department; nor restrict riparian access to the protected stream for such uses as livestock watering or grazing. Protected stream status does not affect current cropping practices or require the establishment or maintenance of buffer strips, filter strips or fences along protected streams.

**72.2(2) Capacity.** In the project reach, excavated channels shall have a discharge capacity equal to or greater than the existing channel. Excessive channel excavation will not be permitted.

**72.2(3) Alignments.** The alignments and dimensions of the excavated channel shall be such as to provide a smooth transition between the existing and the excavated channel.

**72.2(4) Velocities.** Velocities in the excavated channel shall not cause excessive erosion of the channel or banks, with the acceptable velocities being determined by the department. Energy dissipation structures, channel and bank protection, or other engineering measures may be required to eliminate excessive erosion of the channel or banks.

**72.2(5) Spoil disposition.** Disposition of spoil material from channel excavation of the flood plain shall be reviewed under miscellaneous flood plain construction.

**72.2(6) *Increase in flood peak.*** No significant increase in peak flood discharge will be permitted by the department. Floodwater retardance structures may be required to minimize any increase in peak flood discharges.

**72.2(7) *Fish and wildlife habitat and public rights.*** The channel change shall not have a significant adverse effect on fish and wildlife habitat or public rights to use of the stream. Conservation easements and other conditions may be required to mitigate potential damages to the quality of water, fish and wildlife habitat, recreational facilities, and other public rights.

**72.2(8) *Soil erosion.*** The tillage of land along the reach of a straightened stream shall be prohibited or modified when necessary to hold soil erosion to reasonable limits. Zones of land in which tillage shall be prohibited along the straightened reach shall be set on a case-by-case basis with consideration given to topography, soil characteristics, current use, and other factors affecting propensity for soil erosion. The tillage prohibition shall be recorded by the department in the office of the appropriate county recorder and shall run with the land against the applicant and all successors in interest to the land subject to the prohibition.

**72.2(9) *Encroachment on a confinement feeding operation structure.*** A major water source, as identified in Appendix B, Tables 1 and 2 of 567—Chapter 65, or a water source other than a major water source shall not be constructed, expanded or diverted if the water source or major water source as constructed, expanded or diverted is closer than the following distances from a confinement feeding operation. Measurement shall be from the closest point of the confinement feeding operation structure to the top of the bank of a stream channel or the ordinary high water mark of a lake, pond, impoundment or reservoir. Farm ponds, privately owned lakes, and confinement feeding operations constructed with a secondary containment barrier pursuant to 567—subrule 65.15(17) are exempt from the separation distance requirements. The provisions of this subrule shall not be construed to allow construction of a confinement feeding operation structure on land that would be inundated by Q100 and is adjacent to a major water source.

*a.* Minimum separation between a water source other than a major water source and a confinement feeding operation structure is 500 feet.

*b.* Minimum separation between a major water source and a confinement feeding operation structure is 1,000 feet.

**567—72.3(455B) Dams.** The following criteria shall apply to dams which exceed the thresholds in 567—71.3(455B).

**72.3(1) *General criteria for all regulated dams.***

*a. Required findings.* The department will approve the construction, operation or maintenance of a dam or modification of a dam or appurtenant structure only after finding that the project is designed in accordance with accepted engineering practice and methods and in a manner consistent with the applicable criteria and guidelines in department Bulletin No. 16, “Design Criteria and Guidelines for Iowa Dams,” December 1990.

*b. Anticipation of changed circumstances.* In applying the approval criteria in subrule 72.3(1), paragraph “a,” consideration shall be given to both existing conditions and potential future conditions which can reasonably be anticipated at the time the application is reviewed.

*c. Landowner notification.* The department staff engineering review of the plans and specifications for a dam project shall determine whether there are lands upstream, downstream, or adjacent to the impoundment whose use apparently would be potentially adversely affected by maintenance of the dam and appurtenant structures, spillway discharges, temporary ponding of floodwater behind the dam, or failure of the dam. It is the applicant’s responsibility to submit sufficient information with the application and on request to enable the staff to accurately identify the owners and occupants of affected lands. The staff shall notify all known affected owners and occupants that the project may affect use of land in which they have an interest and advise them of their opportunity to be heard on the application. The project shall not be approved unless it appears that notice reasonably calculated to advise all owners and occupants has been given and that they have had an opportunity to be heard.

**72.3(2) Dams other than low head dams.** The following criteria shall apply to all dams other than low head dams:

*a. Assignment of hazard class.* Dams shall be assigned a hazard class based on the potential consequences of failure. Anticipated future land and impoundment use shall be considered in the determination of hazard class. The criteria in this subrule shall be used to determine hazard class regardless of the methodology used in engineering design of a dam. The hazard class shall determine the design requirements of the structure as outlined in department Bulletin No. 16. The hazard class shall be evaluated using the following criteria:

(1) *Low hazard.* A structure shall be classified as low hazard if located in an area where damages from a failure would be limited to loss of the dam, loss of livestock, damages to farm outbuildings, agricultural lands, and lesser used roads, and where loss of human life is considered unlikely.

(2) *Moderate hazard.* A structure shall be classified as moderate hazard if located in an area where failure may damage isolated homes or cabins, industrial or commercial buildings, moderately traveled roads or railroads, interrupt major utility services, but without substantial risk of loss of human life. In addition, structures where the dam and its impoundment are of themselves of public importance, such as dams associated with public water supply systems, industrial water supply or public recreation, or which are an integral feature of a private development complex, shall be considered moderate hazard for design and regulatory purposes unless a higher hazard class is warranted by downstream conditions.

(3) *High hazard.* A structure shall be classified as high hazard if located in an area where failure may create a serious threat of loss of human life or result in serious damage to residential, industrial or commercial areas, important public utilities, public buildings, or major transportation facilities.

(4) *Multiple dams.* Where failure of a dam could contribute to failure of a downstream dam or dams, the minimum hazard class of the dam shall not be less than that of any such downstream structure.

*b. Lands, easements, and rights-of-way.* An application for approval of a dam project shall include information showing the nature and extent of lands, easements, and rights-of-way which the applicant has acquired or proposes to acquire to satisfy the following criteria:

(1) Ownership or perpetual easements shall be obtained for the area to be occupied by the dam embankment, spillways, and appurtenant structures, and the permanent or maximum normal pool;

(2) Ownership or easements shall be obtained for temporary flooding of areas which would be inundated by the flood pool up to the top of dam elevation and for spillway discharge areas;

(3) Easements covering areas affected by temporary flooding or spillway discharges shall include provisions prohibiting the erection and usage of structures for human habitation or commercial purposes without prior approval by the agency;

(4) In locating the site of a dam and in obtaining easements and rights-of-way, the applicant shall consider the impacts which anticipated changes in land use downstream of a dam or adjacent to the impoundment could have on the hazard class of the dam, the operation of the dam, and the potential liability of the dam owner;

(5) The applicant may be required to acquire control over lands downstream from the dam as necessary to prevent downstream development which would affect the hazard class of the dam.

*c. Other approvals required.* The applicant shall comply with all applicable provisions of 567—Chapters 51, 52 and 73 concerning water storage permits, operating permits, and inspections.

*d. Additional requirements for major dam structures.* Dams which are major dam structures as defined in 567—Chapter 70 must satisfy additional criteria set forth in Chapter VI of department Bulletin No. 16.

**72.3(3) Low head dams.** The following criteria shall apply to low head dams:

*a.* The location and design of a low head dam shall not adversely affect the fisheries or recreational use of the stream.

*b.* The pool created by a low head dam shall not adversely affect drainage on lands not owned or under easements by the applicant.

*c.* The structure shall be hydraulically designed to submerge before bankfull stage is reached in the stream channel in order that increased or premature overbank flooding does not occur. Where this

cannot be reasonably accomplished in order for the structure to fulfill its intended purpose, the applicant shall demonstrate that any increased flooding will affect only lands owned or controlled by the applicant.

*d.* For projects which include significant appurtenant structures or works outside the stream channel, the combined effect of the total project shall not create more than 1 foot of backwater during floods which exceed the flow capacity of the channel, unless the proper lands, easements, or rights-of-way are obtained.

*e.* The structure shall be capable of withstanding the effects of normal and flood flows across its crest and against the abutments, and adjacent channel or bank areas shall be protected against erosion as needed.

**72.3(4) Operating plan.** For any dam with movable structures which must operate or be operated during times of flood or to provide minimum downstream flow, or where the impoundment level is raised or lowered on a regular basis, an operating plan must be submitted for approval. The plan shall be in accordance with department Bulletin No. 16 and rules in 567—Chapter 73.

**72.3(5) Encroachment on a confinement feeding operation structure.** A dam shall not be constructed or modified so that the ordinary high water of the lake, pond or reservoir created by the dam is closer than the following distances from a confinement feeding operation structure unless a secondary containment barrier according to 567—subrule 65.15(17) is in place. Measurement shall be from the closest point of the confinement feeding operation structure to the water edge of the lake, pond or reservoir for a pool level at the elevation of the crest of the emergency spillway or at the top of dam elevation should the dam not have an emergency spillway.

*a.* Minimum separation between a water source other than a major water source and a confinement feeding operation structure is 500 feet.

*b.* Minimum separation between a major water source and a confinement feeding operation structure is 1,000 feet or such distance that the structure is not located on land that would be inundated by Q100, whichever is greater.

This rule is intended to implement Iowa Code sections 455B.262, 455B.264, 455B.270, 455B.275 and 455B.277.

**567—72.4(455B) Levees or dikes.** The following criteria shall apply to levees or dikes.

**72.4(1) Agricultural levees or dikes.**

*a. Level of protection.* The permanent height of agricultural levees or dikes normally shall be limited so that overtopping will occur due to discharges from Q10 to Q25 with the more comprehensive levee system being permitted the greater degree of protection.

*b. Additional protection.* Where it can clearly be shown that loss of valley storage caused by construction of the levee will not increase peak flood stages and discharges, the level of protection provided by the agricultural levee or dike may be increased beyond the Q10 to Q25 range.

*c. Alignment.* The location and alignment of agricultural levees or dikes shall be compatible with existing encroachment limits so that minimum flood protection levels will not be increased and said levee or dike alignment otherwise shall be consistent with the rules governing the location of encroachment limits set out in 567—75.4(455B).

*d. Maximum effect.* The maximum increase in the flood profile resulting from the construction, operation, and maintenance of an agricultural levee or dike shall be 1 foot. Equal and opposite conveyance as defined in 567—Chapter 70 shall be used in determining the maximum increase in flood profile resulting from such levees or dikes.

*e. Interior drainage.* All agricultural levees or dikes shall be provided with adequate interior drainage facilities.

*f. Offset.* A minimum offset equal to 100 feet or twice the width of a river or stream measured from top of bank to top of bank, whichever distance is less, shall be required for all agricultural levees unless a greater offset is dictated by 72.4(1), paragraph “c” or “d.”

**72.4(2) Flood control levees or dikes.**

*a. Design level.* The minimum design flood protection level for flood control levees or dikes shall correspond to the flood profile for Q100.

*b. Freeboard.* The levee or dike height shall provide for at least 3 feet of freeboard above the design flood profile.

*c. Alignment.* The alignment of a flood control levee or dike shall be consistent with the rules governing the location of encroachment limits set out in 567—75.4(455B).

*d. Interior drainage.* Flood control levees or dikes shall provide for adequate interior drainage and ponding.

*e. Design and specifications.* The structural design and construction of flood control levees or dikes must be undertaken in accordance with accepted engineering and construction procedures and practices.

**567—72.5(455B) Buildings.** The following criteria apply to buildings.

**72.5(1) Minimum protection levels.** The minimum level of flood protection for a building depends on the damage potential of the building and contents. “Maximum,” “high” and “moderate” damage potential classifications are defined in 567—Chapter 70. Criteria for determining minimum levels of protection are as follows:

*a.* Buildings with maximum damage potential shall be protected to the level of a flood equivalent to Q500 plus 1 foot. Determination of the elevation of the department regional flood is recommended as an alternative to establish an appropriate level of protection for a building which has maximum damage potential (see discussion of flood frequencies and magnitudes in 567—subrule 75.2(1)).

*b.* Buildings with high damage potential shall be protected to the level of a flood equivalent to Q100 plus 1 foot.

*c.* Buildings with moderate damage potential shall be protected to the level of a flood equivalent to Q50.

*d.* Buildings adjacent to an impoundment shall be protected to the elevation of the top of the dam unless the dam has adequate spillway capacity to discharge the flood corresponding to the damage potential of the building at an elevation below the top of the dam.

*e.* Buildings downstream from a dam shall be protected to a level established by the department after due consideration of the hazards posed by the dam for buildings downstream.

**72.5(2) Flood protection methods.** The following flood protection methods are required for buildings to which a minimum flood protection level applies.

*a. Structural design and flood proofing.* Basement walls and floors below the applicable minimum flood protection level shall be structurally designed and constructed to be flood proof and able to withstand hydrostatic pressure and buoyant forces associated with a water table elevation equivalent to the minimum flood protection level. However, attached garages and storage space may be constructed below the applicable minimum protection level without flood proofing if all electrical circuit boxes, furnaces, and hot-water heaters are located above the applicable minimum protection level.

*b. Sanitary sewer drains.* Sanitary sewer drains below the applicable minimum flood protection level shall be provided with automatic closure valves to prevent backflow.

**72.5(3) Location.** The criteria for location of a building include consideration of the potential for obstructing flood flows and the potential hazards which may arise when the building is surrounded by floodwater. Criteria for location of buildings in floodways and flood plains are as follows:

*a. Obstruction.* Buildings shall not be located in the floodway of a stream so as to result, individually or collectively, in any increase in the elevation of Q100 as confined to the floodway. The floodway boundary applicable to an individual application shall be determined as necessary by the department in accordance with the criteria in rule 567—75.4(455B). Analysis of the effect that a building in the floodway would have on flood levels shall be based on the assumption that all similarly situated landowners would be allowed an equal degree of development in the floodway.

*b. Public damages.* Buildings shall be located to minimize public damages associated with isolation due to flooding of surrounding ground. In identifying the potential for public damages, the department shall determine whether there is a need for access passable by wheeled vehicles during Q100. The need for such access shall be determined on the basis of the criteria for evaluating flood warning and response time in 567—subrule 75.2(3).

*c. Existing buildings—replacement and improvements.* In applying the criteria in paragraphs “a” and “b” of this subrule to projects which improve or replace existing lawful buildings the department shall give consideration to the policies for protection of existing development in rule 567—75.6(455B).

**567—72.6(455B) Wastewater treatment facilities.** The following criteria shall apply to wastewater treatment facilities.

**72.6(1) Location.** Wastewater treatment facilities shall not be located so as to individually or collectively conflict with 567—75.4(455B) governing the establishment of encroachment limits.

**72.6(2) Flood protection.** Flood protection for wastewater treatment facilities shall be provided to the level necessary for high damage potential buildings or building complexes unless evidence is submitted indicating the facility is of a lesser damage potential.

**567—72.7(455B) Sanitary landfills.** The following criteria shall apply to sanitary landfills.

**72.7(1) Location.** Sanitary landfills shall not be located so as to individually or collectively conflict with 567—75.4(455B) governing the establishment of encroachment limits.

**72.7(2) Flood protection.** Flood protection for the active working portion of the sanitary landfill shall be provided to the level necessary for high damage potential buildings or building complexes.

**567—72.8(455B) Water supply treatment facilities.** The following criteria shall apply to water supply treatment facilities.

**72.8(1) Location.** Water supply treatment facilities shall not be located so as to individually or collectively conflict with 567—75.4(455B) governing the establishment of encroachment limits.

**72.8(2) Flood protection.** Flood protection for water supply treatment facilities shall be provided to at least the level necessary for high damage potential buildings or building complexes.

**567—72.9(455B) Stream protective devices.** The following criteria shall apply to stream protective devices.

**72.9(1) Overflow.** Stream protective devices shall be constructed in a manner which will not cause premature overbank flow.

**72.9(2) Velocity.** Increased velocities resulting from the construction, operation, and maintenance of stream protective devices shall be limited so as not to cause excessive scour in the channel as determined by the department.

**72.9(3) Stability.** Stream protective devices shall be anchored securely to the bank or constructed in a stable manner so as not to become dislodged and result in the scattering of debris in adjacent and downstream reaches.

**72.9(4) Water quality and aesthetics.** Stream protective devices shall not adversely affect the water quality, fish and wildlife habitat or aesthetics of the stream.

**567—72.10(455B) Pipeline river or stream crossings.** The following criteria shall apply to pipeline river and stream crossings.

**72.10(1) Protection.** Pipeline river or stream crossings shall be sufficiently buried in the stream bed and banks or otherwise sufficiently protected to prevent rupture.

**72.10(2) Overflow and velocities.** Pipeline river or stream crossings shall be constructed, operated, and maintained so as not to create premature overbank flow or excessive scour to the channel or banks.

**72.10(3) Spoil.** Spoil material resulting from the construction of a pipeline crossing shall be disposed of in a manner which will not obstruct low flow or flood flows.

**567—72.11(455B) Miscellaneous construction.** The following criteria shall apply to miscellaneous construction.

**72.11(1) Structures, obstructions, or deposits.**

*a. Location.* Miscellaneous structures, obstructions, or deposits shall not be located so as to individually or collectively conflict with 567—75.4(455B) governing the establishment of encroachment limits.

*b. Protection.* Miscellaneous structures, obstructions, or deposits shall be provided with the minimum level of flood protection associated with the designated damage potential as indicated in 72.5(1) governing buildings and building complexes.

**72.11(2) Excavation.**

*a. Spoil.* Spoil material resulting from an excavation shall be disposed of in a manner consistent with 72.11(1)“a” pertaining to miscellaneous structures, obstructions, or deposits.

*b. Levees.* Levees protecting excavations shall meet the requirements of 72.11(1)“a” pertaining to miscellaneous structures, obstructions, or deposits.

*c. Control of surface runoff into rock quarries.* When the department investigates an application for approval of excavation of a quarry in carbonate rock on a flood plain or floodway, the department shall consider the potential for pollution of an underground watercourse or basin from drainage of surface water into the quarry. If available information including topographic and geological information support a finding that drainage of surface water into the quarry would constitute a violation of the permit requirement in Iowa Code section 455B.268(3) and might cause pollution of an underground watercourse or basin if not controlled, then the department shall require that the applicant either request a permit under Iowa Code sections 455B.268(3) and 51.5(455B) to authorize drainage of surface water into the quarry, or construct and maintain a means of controlling drainage of surface water which would otherwise drain into the quarry.

**567—72.12** Reserved.

**567—72.13(455B) Animal feeding operation structures.** The following criteria shall apply to animal feeding operation structures.

**72.13(1) Confinement feeding operation structures located on the flood plain of a major water source.** As required by 567—Chapter 65, confinement feeding operation structures shall not be constructed on land that would be inundated by Q100 and is adjacent to a major water source. Placing fill material on flood plain land to elevate the land above the Q100 level will not be considered as removing the land from the one hundred year flood plain for the purpose of this subrule.

**72.13(2) Other animal feeding operation structures.** The following criteria shall apply to animal feeding operation structures located on the flood plain of any water source and confinement feeding operation structures located on the flood plain of a water source other than a major water source.

*a. Location.* Such structures shall not be located so as to individually or collectively conflict with rule 567—75.4(455B) governing the establishment of encroachment limits.

*b. Flood protection.* Flood protection for such structures shall be provided to the level necessary for high damage potential buildings or building complexes, pursuant to rule 567—72.5(455B).

These rules are intended to implement Iowa Code sections 455B.262, 455B.264, 455B.270, 455B.275, 455B.277, 459.102 and 459.301.

**567—72.14 to 72.29** Reserved.

DIVISION II  
GENERAL CRITERIA

**567—72.30(455B) General conditions.** Department orders approving an activity or project shall be subject to the following conditions.

**72.30(1) Maintenance.** The applicant and any successor in interest to the real estate on which the project or activity is located shall be responsible for proper maintenance.

**72.30(2) Responsibility.** No legal or financial responsibility arising from the construction or maintenance of the approved works shall attach to the state of Iowa or the agency due to the issuance of an order or administrative waiver.

**72.30(3) Lands.** The applicant shall be responsible for obtaining such government licenses, permits, and approvals, and lands, easements, and rights-of-way which are required for the construction, operation, and maintenance of the authorized works.



**72.30(4) *Change in plans.*** No material change from the plans and specifications approved by the department shall be made unless authorized by the department.

**72.30(5) *Revocation of order.*** A department order may be revoked if construction is not completed within the period of time specified in the department order.

**72.30(6) *Performance bond.*** A performance bond may be required when necessary to secure the construction, operation, and maintenance of approved projects and activities in a manner that does not create a hazard to the public's health, welfare, and safety. The amount and conditions of such bond shall be specified as special conditions in the department order.

**567—72.31(455B) Variance.**

**72.31(1) *In general.*** Where evidence is presented that additional private or significant public damage will not result from flood plain or floodway construction (other than channel changes) subject to regulation under 567—Chapters 70 to 72, the department may permit variance to the criteria stated in Chapter 72.

**72.31(2) *Channel change variances.*** The department may grant variances to the criteria stated in this chapter for channel changes (other than channel changes on protected streams) only in the following instances: (a) For comprehensive flood control projects in urban areas where channelization is the best alternative available; (b) for public projects such as roads or road grade protection where a channel change is the only reasonable and practicable alternative; (c) in cases whereby natural channel erosion has significant probability of eroding the structural stability of a building or other structure and bank erosion control measures are not feasible or practical under the circumstances; (d) in other cases where the applicant can clearly show that there are no adverse effects on the public interest.

**72.31(3) *Protected stream channel change variance.*** The department may grant variances to the prohibition of channel changes on protected streams for those cases listed in 72.31(2) "b," "c," and "d," but such variances will be with provisions for mitigation of environmental damage.

**567—72.32(455B) Protected stream information.** The following describes the variance procedure and the relation of hydrologically connected streams to protected streams:

**72.32(1) *Protected streams variance procedure.*** The variance shall be requested as part of the permit application and review process provided for in rules 567—70.3(17A,455B,481A) to 70.5(17A,455B,481A) and decisions on the variance request may be appealed in accordance with rule 567—70.6(17A,455B,481A). If the applicant is denied a permit to channelize a protected stream, the applicant may appeal to the environmental protection commission. The appeal will normally be heard by an administrative law judge but the applicant may request that the commission hear the appeal directly. If a proposed decision of an administrative law judge would affirm the denial of the permit, the applicant may appeal the administrative law judge's decision to the commission. If, on appeal, the commission affirms the denial of the permit, the applicant may appeal to the district court.

**72.32(2) *Hydrologically connected streams.*** Streams or waters that are hydrologically connected to protected streams are not protected streams unless specifically listed as protected streams in 72.50(2). The environmental protection commission considers the streams and waters that are hydrologically connected to streams proposed to become protected streams as one of the factors in the decision-making process to add streams to the list of protected streams in a rule-making procedure. Subrule 72.51(7) lists the other factors that affect the decision.

**72.32(3) *Protected stream activities.*** Protected stream status does not prohibit bank stabilization measures; tree maintenance or removal; maintenance or installation of tile outlets; machinery crossings, including concrete drive-throughs and bridges; boat or canoe ramps; or other structures permitted by the department; nor restrict riparian access to the protected stream for such uses as livestock watering or grazing. Protected stream status does not affect current cropping practices or require the establishment or maintenance of buffer strips, filter strips, or fences along protected streams except as may be required to mitigate environmental damage associated with a channel change on a protected stream.

**567—72.33 to 72.49** Reserved.

DIVISION III  
PROTECTED STREAM DESIGNATION PROCEDURE

**567—72.50(455B) Protected streams.**

**72.50(1) *Protected streams defined.*** Protected streams shall include streams designated as protected streams pursuant to the procedures of 72.51(455B), which upon designation will be listed in 72.50(2). Streams hydrologically connected to protected streams are not protected streams unless specifically listed as protected streams in 72.50(2).

**72.50(2) *List of protected streams.*** Streams designated as protected streams are the following:

ADAIR COUNTY

Middle River, east county line to confluence with unnamed creek (NE 1/4, S36, T76N, R30W, Adair Co.);

ALLAMAKEE COUNTY

Bear Creek, mouth (S1, T99N, R6W, Allamakee Co.) to west county line;  
 Clear Creek, mouth (S35, T100N, R5W, Allamakee Co.) to north line of S15, T100N, R5W;  
 Clear Creek, mouth (S29, T99N, R3W, Allamakee Co.) to west line of S25, T99N, R4W;  
 Cota Creek, mouth to west line of S10, T97N, R3W;  
 Dousman Creek, mouth (S33, T96N, R3W, Allamakee Co.) to south county line;  
 French Creek, mouth to east line of S23, T99N, R5W;  
 Hickory Creek, mouth to south line of S28, T96N, R5W;  
 Irish Hollow Creek, mouth to north line of S17, T100N, R4W;  
 Little Paint Creek, mouth to north line of S30, T97N, R3W;  
 Norfolk Creek, mouth to confluence with Teeple Creek (S24, T97N, R6W);  
 Paint Creek (a.k.a. Pine Creek), mouth (S9, T99N, R6W, Allamakee Co.) to west county line;  
 Paint Creek, mouth (S15, T96N, R3W, Allamakee Co.) to road crossing S18, T97N, R4W;  
 Patterson Creek, mouth to east line of S3, T98N, R6W;  
 Silver Creek, mouth (S4, T99N, R5W, Allamakee Co.) to south line of S31, T99N, R5W;  
 Suttle Creek, mouth (S17, T96N, R4W, Allamakee Co.) to south county line;  
 Teeple Creek, mouth (S24, T97N, R6W, Allamakee Co.) to spring source in S11, T97N, R6W;  
 Trout Run, mouth in S16, T98N, R4W through one mile reach;  
 Unnamed tributary to Village Creek (a.k.a. Erickson Spring Branch), mouth to west line of S23, T98N, R4W;  
 Unnamed tributary to the Yellow River (a.k.a. Bear Creek), mouth to north line of S12, T96N, R5W;  
 Upper Iowa River, from Lane's Bridge at river mile 6 to west county line;  
 Village Creek, mouth to west line of S19, T98N, R4W;  
 Waterloo Creek, mouth (S35, T100N, R6W) to north county line;  
 Wexford Creek, mouth to west line of S25, T98N, R3W;  
 Yellow River, mouth to west county line;

APPANOOSE COUNTY

Chariton River, Highway 2 (S27, T69N, R17W, Appanoose Co.) to Rathbun Lake Dam (S35, T70N, R18W, Appanoose Co.);

BENTON COUNTY

Bear Creek, east county line to confluence with Opossum Creek (S 5/8, T84N, R9W, Benton Co.);  
 Bear Creek, mouth (S21, T86N, R10W, Benton Co.) to confluence with unnamed creek (NE1/4, NE 1/4, S2, T86N, R10W, Benton Co.);  
 Cedar River, east county line to north county line;  
 Iowa River, south county line to west county line;  
 Lime Creek, mouth (S4, T86N, R10W, Benton Co.) to north county line;  
 Prairie Creek, mouth (S10, T85N, R10W, Benton Co.) to confluence with unnamed creek (S36, T86N, R10W, Benton Co.);  
 Salt Creek, mouth (S31, T82N, R12W, Benton Co.) to west county line;

Wild Cat Creek, mouth (S8, T84N, R9W, Benton Co.) to confluence with unnamed creek (W1/2, S33, T84N, R10W, Benton Co.);

Wolf Creek, north county line to west county line;

#### BLACK HAWK COUNTY

Black Hawk Creek, mouth (S22, T89N, R13W, Black Hawk Co.) to west county line;

Cedar River, east county line to north county line;

Crane Creek, mouth (S26, T90N, R11W, Black Hawk Co.) to confluence with unnamed creek (S3, T90N, R12W, Black Hawk Co.);

Shell Rock River, mouth (S4, T90N, R14W, Black Hawk Co.) to north county line;

Wapsipinicon River, east county line to north county line;

West Fork Cedar River, mouth (S10, T90N, R14W, Black Hawk Co.) to west county line;

Wolf Creek, mouth (S19, T87N, R11W, Black Hawk Co.) to south county line;

#### BOONE COUNTY

Big Creek, south county line to confluence with unnamed creek (NW 1/4, S34, T82N, R25W, Boone Co.);

Bluff Creek, mouth (S22, T84N, R27W, Boone Co.) to Don Williams Lake Outlet (S5, T84N, R27W, Boone Co.);

Des Moines River, south county line to north county line;

#### BREMER COUNTY

Cedar River, south county line to north county line;

Shell Rock River, south county line to west county line;

Wapsipinicon River, south county line to north county line;

#### BUCHANAN COUNTY

Cedar River, south county line to west county line;

Lime Creek, south county line to confluence with unnamed creek (S1, T87N, R10W, Buchanan Co.);

South Fork Maquoketa River, east county line to confluence with major unnamed creek (S4, T90N, R7W, Buchanan Co.);

Wapsipinicon River, south county line to west county line;

#### BUENA VISTA COUNTY

Little Sioux River, north county line to north county line (entire length in county);

North Raccoon River, south county line to the north line of the NW 1/4, SE 1/4, S12, T90N, R36W, Buena Vista Co.;

#### BUTLER COUNTY

Shell Rock River, east county line to north county line;

West Fork Cedar River, east county line to west county line;

#### CALHOUN COUNTY

Camp Creek, mouth (S7, T86N, R34W, Calhoun Co.) to confluence with unnamed creek (NE1/4, NE 1/4, S33, T87N, R34W, Calhoun Co.);

Cedar Creek, south county line to confluence with unnamed creek (S 1/2, S34, T86N, R32W, Calhoun Co.);

Lake Creek, mouth (S23, T86N, R34W, Calhoun Co.) to confluence with D.D. 13 (S33, T88N, R32W, Calhoun Co.);

North Raccoon River, south county line to west county line;

#### CARROLL COUNTY

Middle Raccoon River, south county line to confluence with unnamed creek (SE 1/4, S15, T84N, R35W, Carroll Co.);

North Raccoon River, east county line to north county line;

#### CEDAR COUNTY

Cedar River, south county line to west county line;

Rock Creek, mouth (S2, T79N, R3W, Cedar Co.) to confluence with West Rock Creek (S11, T81N, R3W, Cedar Co.);

Sugar Creek, south county line to confluence with unnamed creek (S35, T80N, R2W, Cedar Co.);

Wapsipinicon River, east county line to north county line;

#### CERRO GORDO COUNTY

Beaverdam Creek, south county line to confluence with unnamed creek (S12, T95N, R22W, Cerro Gordo Co.);

Shell Rock River, east county line to north county line;

Spring Creek, mouth (S28, T97N, R20W, Cerro Gordo Co.) to confluence with Blair Creek (S9, T97N, R20W, Cerro Gordo Co.);

Willow Creek, mouth (S3, T96N, R20W, Cerro Gordo Co.) to confluence with Clear Creek (S16, T96N, R21W, Cerro Gordo Co.);

Winnebago River, east county line to west county line (entire length in county);

#### CHEROKEE COUNTY

Little Sioux River, south county line to north county line;

Maple River, south county line to confluence with unnamed creek (N 1/2, S29, T91N, R39W, Cherokee Co.);

Mill Creek, confluence with Willow Creek (S1, T93N, R41W, Cherokee Co.) to north county line;

#### CHICKASAW COUNTY

Cedar River, south county line to west county line;

Crane Creek, east county line to confluence with unnamed creek (NE 1/4, S25, T95N, R11W, Chickasaw Co.);

Little Cedar River, mouth (S20, T94N, R14W, Chickasaw Co.) to west county line;

Wapsipinicon River, south county line to north county line;

#### CLAY COUNTY

Little Sioux River, west county line to north county line (entire length in county);

Lost Island Outlet, mouth (S35, T96N, R36W, Clay Co.) to County Road M 54 (S24, T96N, R36W, Clay Co.);

Muddy Creek, mouth (S15, T96N, R36W, Clay Co.) to County Road B 17 (north line, S23, T97N, R36W, Clay Co.);

Ocheyedan River, mouth (S13, T96N, R37W, Clay Co.) to confluence with Stoney Creek (S7, T96N, R37W, Clay Co.);

Prairie Creek, mouth (S26, T96N, R36W, Clay Co.) to confluence with unnamed creek (SE1/4, S35, T96N, R37W, Clay Co.);

Stoney Creek, mouth (S7, T96N, R37W, Clay Co.) to Highway 18 (S31, T96N, R37W, Clay Co.);

#### CLAYTON COUNTY

Bear Creek, mouth (S34, T92N, R4W, Clayton Co.) to west line of S23 T91N, R5W, Clayton Co.;

Bloody Run, mouth (S15, T95N, R3W) to source at Spook Cave;

Bloody Run Creek (a.k.a. Grimes Hollow), mouth (S36, T91N, R3W) to south county line;

Brownfield Creek, mouth to spring source (S31, T91N, R3W);

Buck Creek, mouth (S29, T93N, R2W, Clayton Co.) to west line of S9, T93N, R3W;

Cox Creek, mouth (S21, T92N, R5W, Clayton Co.) to south line S12, T91N, R6W, Clayton Co.;

Dry Mill Creek, mouth to west line of S9, T93N, R4W;

Elk Creek, mouth (S36, T92N, R4W, Clayton Co.) to south county line;

Ensign Creek, mouth (S28, T92N, R6W, Clayton Co.) to spring source (S29, T92N, R6W, Clayton Co.);

Hewett Creek, mouth to south line of S29, T92N, R6W;

Kleinlein Creek (a.k.a. Spring Creek), mouth to spring source (S10, T91N, R6W);

Maquoketa River, south county line to west county line;

Miners Creek, mouth to west line of S1, T92N, R3W;

Mink Creek, mouth (S30, T93N, R6W) to west county line;

Mossey Glen Creek, mouth (S3, T91N, R5W) to south line of S10, T91N, R5W, Clayton Co.;

North Cedar Creek, mouth (S8, T94N, R3W) to source;

Pecks Creek, mouth to south line of S15, T91N, R3W;

Pine Creek, mouth (S26, T91N, R4W) to confluence with Brownfield Creek (S25, T91N, R4W);

Point Hollow Creek (a.k.a. White Pine Creek), mouth (S31, T91N, R2W) to south county line;  
Roberts Creek, mouth (SE 1/4, S25, T93N, R5W, Clayton Co.) to confluence with an unnamed creek (SE 1/4, S15, T95N, R6W, Clayton Co.);

Sny Magill Creek (a.k.a. Magill Creek), mouth to source;

South Cedar Creek (a.k.a. Cedar Creek), mouth (S33, T92N, R3W, Clayton Co.) to north line of S30, T93N, R3W, Clayton Co.;

Steeles Branch, mouth (S26, T91N, R4W) to south line S32, T91N, R4W, Clayton Co. (entire length in county);

Turkey River, confluence with Volga River to west county line;

Unnamed tributary to Sny Magill Creek (a.k.a. West Fork Sny Magill Creek), mouth (S7, T94N, R3W) to west line of S7, T94N, R3W;

Volga River, mouth (S26, T92N, R4W, Clayton Co.) to west county line;

#### CLINTON COUNTY

Elk River, mouth (S20, T83N, R7E, Clinton Co.) to confluence with North Branch Elk River (S10, T83N, R6E, Clinton Co.);

Wapsipinicon River, mouth (S13, T80N, R5E, Clinton Co.) to west county line (entire length in county);

#### CRAWFORD COUNTY

Boyer River, south county line to north county line;

#### DALLAS COUNTY

Des Moines River, east county line to north county line (entire length in county);

Middle Raccoon River, mouth (S9, T78N, R29W, Dallas Co.) to west county line (entire length in county);

North Raccoon River, mouth (S21, T78N, R27W, Dallas Co.) to north county line (S5, T81N, R29W, Dallas Co.) (entire length in county);

Raccoon River, east county line to confluence with North Raccoon River (S21, T78N, R27W, Dallas Co.);

#### DAVIS COUNTY

Des Moines River, east county line to north county line (entire length in county);

#### DECATUR COUNTY

Thompson River, Highway 69 (S35, T68N, R26W, Decatur Co.) to west county line;

#### DELAWARE COUNTY

Bloody Run Creek (a.k.a. Grimes Hollow), north county line to spring source (S3, T90N, R3W);

Coffins Creek, mouth (S19, T89N, R5W, Delaware Co.) to confluence with Prairie Creek (S29, T89N, R6W, Delaware Co.);

Elk Creek, north county line to confluence with unnamed creek (center, S13, T90N, R4W, Delaware Co.);

Fenchel Creek, mouth (S5, T90N, R6W) to Richmond Springs (center of S4, T90N, R6W);

Fountain Spring Creek (a.k.a. Odell Branch), mouth (SE 1/4, S10, T90N, R4W) to confluence with South Branch Fountain Spring Creek (SE 1/4, S16, T90N, R4W);

Little Turkey River, north county line to south line of S11, T90N, R3W;

Maquoketa River, south county line to north county line;

Sand Creek, mouth (S9, T88N, R5W, Delaware Co.) to confluence with major unnamed creek (SW 1/4, S11, T88N, R6W, Delaware Co.);

Schechtman Branch, mouth to south line of S14, T90N, R4W;

South Branch Fountain Spring Creek, mouth (S16, T90N, R4W) to spring source (S16, T90N, R4W);

South Fork Maquoketa River, mouth (S16, T90N, R6W, Delaware Co.) to west county line;

Spring Branch, mouth (S10, T88N, R5W) to major spring source, north of Highway 20 (S35, T89N, R5W, Delaware Co.)

Steeles Branch, north county line to west line of S5, T90N, R4W, Delaware Co. (entire length in county between S4, T90N, R4W and west line of S5, T90N, R4W);

Twin Springs Creek, mouth (S2, T90N, R4W) to spring source (S12, T90N, R4W);

## DES MOINES COUNTY

Cedar Creek, mouth (S1, T69N, R5W, Des Moines Co.) to Geode Lake Dam;

Cedar Creek, west county line to confluence with unnamed creek (S18, T70N, R4W, Des Moines Co.);

Flint Creek, mouth (S28, T70N, R2W, Des Moines Co.) to confluence with unnamed creek (NW 1/4, S21, T71N, R4W, Des Moines Co.);

Skunk River, mouth (S8, T68N, R2W, Des Moines Co.) to east county line (entire length in county);

## DICKINSON COUNTY

Little Sioux River, south county line to confluence with West Fork Little Sioux River (S7, T99N, R37W, Dickinson Co.);

## DUBUQUE COUNTY

Bloody Run, mouth (S34, T90N, R2E) to west line of S21, T90N, R2E;

Catfish Creek, mouth (S5, T88N, R3E, Dubuque Co.) to source;

Cloie Branch, mouth (S5, T89N, R2E) to west line of S5, T89N, R2E;

Hogans Branch, mouth (S35, T89N, R1W) to west line of S9, T88N, R1W;

Little Maquoketa River, mouth (S26, T90N, R2E, Dubuque Co.) to north line of NE 1/4, S5, T88N, R1W, Dubuque Co.;

Middle Fork Little Maquoketa River, west line of S31, T90N, R1E to north line of S33, T90N, R1W;

Point Hollow Creek (a.k.a. White Pine Creek), north county line to spring source (S8, T90N, R2W);

Tete des Morts Creek (a.k.a. Tete des Morts River), mouth (S34, T88N, R4E, Dubuque Co.) to south county line (S34, T88N, R4E, Dubuque Co.);

## EMMET COUNTY

Brown Creek, mouth (S24, T99N, R34W, Emmet Co.) to Highway 9 (S13, T99N, R34W, Emmet Co.);

Des Moines River, south county line to north county line;

East Fork Des Moines River, east county line to Tuttle Lake Outlet (S13, T100N, R32W, Emmet Co.);

## FAYETTE COUNTY

Bass Creek, mouth (S3, T95N, R9W) to west line of S3, T95N, R9W;

Bear Creek, mouth (S8, T92N, R7W, Fayette Co.) to west line of S6, T92N, R7W;

Bell Creek, mouth (S10, T94N, R7W) to west line of S8, T94N, R7W;

Brush Creek, mouth (S26, T93N, R7W, Fayette Co.) to east line of S17, T92N, R7W, Fayette Co.;

Crane Creek, mouth (S31, T95N, R9W, Fayette Co.) to west county line;

Grannis Creek, mouth (S30, T93N, R7W), to west line of S36, T93N, R8W, Fayette Co.;

Little Turkey River, mouth (S18, T95N, R8W, Fayette Co.) to north county line;

Maquoketa River, east county line to north line of S24, T91N, R7W;

Mink Creek, east county line to west line of S15, T93N, R7W;

North Branch Volga River, mouth (S33, T93N, R9W, Fayette Co.) to confluence with unnamed creek (S8, T93N, R9W, Fayette Co.);

Otter Creek, mouth to confluence with unnamed tributary (a.k.a. Glovers Creek) in S22, T94N, R8W;

Turkey River, east county line to north county line;

Unnamed tributary to Otter Creek (a.k.a. Glovers Creek), mouth (S22, T94N, R8W) to west line of S15, T94N, R8W;

Volga River, east county line to confluence with an unnamed creek (NW 1/4, NE 1/4, SE 1/4, S24, T93N, R10W, Fayette Co.);

## FLOYD COUNTY

Cedar River, east county line to north county line;

Little Cedar River, east county line to north county line;

Rock Creek, mouth (S24, T97N, R17W, Floyd Co.) to north county line (entire length in county);

Shell Rock River, south county line to west county line;

Winnebago River, mouth (S14, T95N, R18W, Floyd Co.) to west county line;

## FRANKLIN COUNTY

Beaver Creek, east county line to road crossing (S28, T90N, R19W, Franklin Co.);

Beaverdam Creek, mouth (S19, T93N, R19W, Franklin Co.) to north county line;

Iowa River, south county line to west county line (entire length in county);

Maynes Creek, confluence with unnamed creek (S12, T91N, R19W, Franklin Co.) to confluence with unnamed creek (S30, T91N, R20W, Franklin Co.);

Otter Creek, mouth (S28, T92N, R19W, Franklin Co.) to County Road C 23 (north line of S31, T93N, R20W, Franklin Co.);

West Fork Cedar River, east county line to confluence with Beaverdam & Bailey Creeks (S19, T93N, R19W, Franklin Co.);

## GREENE COUNTY

Cedar Creek, mouth (S33, T85N, R32W, Greene Co.) to north county line;

North Raccoon River, south county line to west county line (entire length in county);

## GRUNDY COUNTY

Black Hawk Creek, east county line to confluence with Minnehaha Creek (S7, T87N, R16W, Grundy Co.);

Wolf Creek, east county line to confluence with unnamed creek (S32, T86N, R17W, Grundy Co.);

## GUTHRIE COUNTY

Middle Raccoon River, Lake Panorama (S15, T80N, R31W, Guthrie Co.) to north county line;

Middle Raccoon River, east county line to Lake Panorama Outlet (S31, T80N, R30W, Guthrie Co.);

## HAMILTON COUNTY

Boone River, west county line to north county line;

Des Moines River, west county line to west county line (entire length in county);

Eagle Creek, mouth (S6, T89N, R25W, Hamilton Co.) to north county line;

White Fox Creek, mouth (S33, T89N, R25W, Hamilton Co.) to north county line;

## HANCOCK COUNTY

East Fork Iowa River, south county line to confluence with Galls Creek (S12, T95N, R24W, Hancock Co.);

West Fork Iowa River, south county line to County Road B 55 (north line of S31, T95N, R24W, Hancock Co.);

Winnebago River, east county line to north county line (entire length in county);

## HARDIN COUNTY

Iowa River, south county line to north county line;

School Creek, mouth (S28, T89N, R20W, Hardin Co.) to confluence with unnamed creek (S16, T89N, R20W, Hardin Co.);

South Fork Iowa River, mouth (S4, T86N, R19W, Hardin Co.) to Highway 359 (S11, T88N, R22W, Hardin Co.);

## HENRY COUNTY

Cedar Creek, mouth (S9, T71N, R7W, Henry Co.) to west county line (entire length in county);

Cedar Creek, upper extent of Geode Lake (S25, T70N, R5W, Henry Co.) to east county line;

Crooked Creek, west county line to north county line;

Skunk River, south county line to west county line (NW 1/4, S30, T73N, R7W, Henry Co.)(entire length in Henry Co.);

## HOWARD COUNTY

Beaver Creek, mouth (S19, T100N, R12W, Howard Co.) to south line of S29, T100N, R13W;

Bohemian Creek, east county line to west line of S2, T97N, R11W;

Chialk Creek, mouth (S1, T98N, R11W, Howard Co.) to north line S36, T99N, R11W, Howard Co.;

Nichols Creek (a.k.a. Bigalks Creek), east county line to west line of S23, T100N, R11W;

Staff Creek, mouth to west line of S27, T100N, R14W;

Turkey River, east county line to confluence with South Branch Turkey River (S2, T98N, R12W, Howard Co.);

Upper Iowa River, all of the river located in Howard County;

Wapsipinicon River, south county line to west county line;

#### HUMBOLDT COUNTY

Des Moines River, south county line to north line S7, T92N, R30W, Humboldt Co.;

East Fork Des Moines River, mouth (S19, T91N, R28W, Humboldt Co.) to north county line;

#### IDA COUNTY

Little Sioux River, west county line to north county line;

Maple River, west county line to north county line;

#### IOWA COUNTY

Iowa River, east county line to north county line;

#### JACKSON COUNTY

Brush Creek, north line of S23, T85N, R3E to north line of S1, T85N, R3E;

Cedar Creek, mouth (S30, T85N, R3E) to east line of S29, T85N, R3E;

Little Mill Creek, mouth to west line of S29, T86N, R4E;

Maquoketa River, mouth (S7, T85N, R6E, Jackson Co.) to west county line (entire length in county);

Mill Creek, mouth (S18, T86N, R5E, Jackson Co.) to confluence with unnamed creek (S1, T86N, R3E, Jackson Co.);

Mineral Creek, mouth (S32, T85N, R1E, Jackson Co.) to west county line;

Ozark Spring Run, mouth (S32, T86N, R1E) to spring source in center of S32, T86N, R1E;

Pleasant Creek (a.k.a. Springbrook), confluence with unnamed creek (E 1/2, S11, T85N, R4E, Jackson Co.) to west line S15, T85N, R4E, Jackson Co.;

South Fork Big Mill Creek, mouth (S8, T86N, R4E, Jackson Co.) to west line S17, T86N, R4E, Jackson Co.;

Storybook Hollow, mouth (S7, T86N, R4E, Jackson Co.) to south line of S12, T86N, R3E, Jackson Co.;

Tete des Morts Creek (a.k.a. Tete des Morts River), north county line (S3, T87N, R4E, Jackson Co.) to confluence with unnamed creek (NW 1/4, S4, T87N, R3E, Jackson Co.);

Unnamed Creek, mouth (S1, T86N, R3E, Jackson Co.) to west line S1, T86N, R3E, Jackson Co.;

Unnamed tributary to Lytle Creek, mouth (S7, T86N, R2E) to west line of S11, T86N, R1E;

#### JEFFERSON COUNTY

Crooked Creek, mouth (S1, T73N, R8W, Jefferson Co.) to east county line;

Skunk River, east county line (east line, S13, T72N, R8W, Jefferson Co.) to north county line (north line, S1, T73N, R8W, Jefferson Co.) (entire length in Jefferson Co.);

#### JOHNSON COUNTY

Cedar River, east county line to north county line;

Clear Creek, Interstate 380 (S34, T80N, R7W, Johnson Co.) to confluence with unnamed creek (S29, T80N, R8W, Johnson Co.);

Iowa River, south county line (south line, S32, T77N, R5W, Johnson Co.) to Coralville Dam (S22, T80N, R6W, Johnson Co.);

North Branch Old Mans Creek, mouth (S31, T79N, R7W, Johnson Co.) to north line S23, T79N, R8W, Johnson Co.;

#### JONES COUNTY

Buffalo Creek, mouth (S10, T84N, R4W, Jones Co.) to west county line;

Maquoketa River, east county line to north county line (entire length in county);

Mineral Creek, east county line to west line S29, T85N, R1W, Jones Co.;

Wapsipinicon River, south county line to west county line;

#### KEOKUK COUNTY

North Skunk River, mouth (S5, T74N, R10W, Keokuk Co.) to west county line;

Skunk River, east county line to confluence with North & South Skunk Rivers (S5, T74N, R10W, Keokuk Co.);

South English River, east county line to confluence with unnamed creek (S6, T77N, R13W, Keokuk Co.);



South Skunk River, mouth (S5, T74N, R10W, Keokuk Co.) to confluence with Olive Branch Creek (S30, T75N, R13W, Keokuk Co.);

**KOSSUTH COUNTY**

Buffalo Creek, mouth (S20, T97N, R28W, Kossuth Co.) to confluence with North Buffalo Creek (S4, T97N, R27W, Kossuth Co.);

East Fork Des Moines River, south county line to west county line;

**LEE COUNTY**

Des Moines River, mouth (S34, T65N, R5W, Lee Co.) to west county line (entire length in county);

Skunk River, mouth (S8, T68N, R2W, Lee Co.) to north county line (entire length in county);

**LINN COUNTY**

Bear Creek, mouth (S21, T84N, R8W, Linn Co.) to west county line;

Buffalo Creek, east county line to Highway 13 (S10, T86N, R6W, Linn Co.);

Cedar River, south county line to west county line;

East Otter Creek, confluence with Otter Creek (S7, T84N, R7W, Linn Co.) to confluence with unnamed creek (S 1/2, S28, T85N, R7W, Linn Co.);

Wapsipinicon River, east county line to north county line;

**LOUISA COUNTY**

Cedar River, mouth (S20, T75N, R4W, Louisa Co.) to north county line;

Iowa River, mouth to north county line (NW 1/4, S6, T76N, R5W, Louisa Co.) (entire length in county);

Long Creek, mouth (S1, T74N, R4W, Louisa Co.) to west county line;

**LUCAS COUNTY**

Chariton River, Rathbun Lake (S34, T71N, R20W, Lucas Co.) to Highway 14 (S31, T72N, R21W, Lucas Co.);

White Breast Creek, north county line to confluence with unnamed creek (W 1/2, NW 1/4, S6, T71N, R23W, Lucas Co.);

Wolf Creek, mouth (S15, T71N, R21W, Lucas Co.) to confluence with unnamed creek (NE 1/4, S36, T71N, R22W, Lucas Co.);

**LYON COUNTY**

Big Sioux River, south county line to north county line;

Little Rock River, mouth (S35, T98N, R46W, Lyon Co.) to confluence with unnamed creek (S10, T98N, R44W, Lyon Co.);

Otter Creek, mouth (S21, T98N, R44W, Lyon Co.) to south county line;

Rock River, south county line to north county line;

**MADISON COUNTY**

Middle River, east county line to west county line;

Thompson River, south county line to confluence with unnamed creek (NW 1/4, S7, T74N, R29W, Madison Co.);

**MAHASKA COUNTY**

Des Moines River, south county line to west county line (entire length in county);

North Skunk River, east county line to north county line;

**MARION COUNTY**

Des Moines River, east county line to west county line (entire length in county);

White Breast Creek, mouth to west county line;

**MARSHALL COUNTY**

Iowa River, east county line to Marshalltown Center St. Dam (S26, T84N, R18W, Marshall Co.);

Iowa River, confluence with Dowd Creek (S2, T85N, R19W, Marshall Co.) to north county line;

Minerva Creek, mouth (S2, T84N, R19W, Marshall Co.) to confluence with major unnamed creek (NW 1/4, S9, T85N, R20W, Marshall Co.);

Wolf Creek, north county line to north county line (S2, T85N, R17W, Marshall Co.) (entire length in county);

**MITCHELL COUNTY**

Beaver Creek, mouth to north line of S19, T99N, R15W;  
Burr Oak Creek, mouth (S12, T98N, R16W, Mitchell Co.) to north line of S5, T98N, R16W, Mitchell Co.;

Cedar River, south county line to north county line;  
Deer Creek, mouth (S23, T99N, R18W, Mitchell Co.) to west county line;  
Little Cedar River, south county line to north county line;  
Rock Creek, south county line (S14, T97N, R17W, Mitchell Co.) to north line of S26, T98N, R18W, Mitchell Co. (entire length in county between south line of S14, T97N, R17W and north line of S26, T98N, R18W);  
Spring Creek, mouth to north line of S8, T97N, R16W;  
Turtle Creek, mouth to east line of S7, T99N, R17W;  
Wapsipinicon River, east county line to north line of S20, T100N, R15W;

#### MONONA COUNTY

Maple River, south line (S34, T85N, R43W, Monona Co.) to north county line;

#### MONROE COUNTY

Des Moines River, east county line to north county line (entire length in county);

#### MUSCATINE COUNTY

Cedar River, south county line to north county line;  
Pine Creek, mouth (S21, T77N, R1E, Muscatine Co.) to confluence with unnamed creek (S26, T78N, R1W, Muscatine Co.);  
Sugar Creek, mouth (S17, T78N, R2W, Muscatine Co.) to north county line;

#### O'BRIEN COUNTY

Little Sioux River, south county line to east county line;  
Mill Creek, south county line to confluence with unnamed creek (NE 1/4, S9, T95N, R41W, O'Brien Co.);

#### PLYMOUTH COUNTY

Big Sioux River, south county line to north county line;

#### POLK COUNTY

Big Creek, upper extent of Big Creek Lake (S9, T81N, R25W, Polk Co.) to north county line;  
Des Moines River, east county line to west county line (entire length in county);  
Raccoon River, mouth (S10, T78N, R24W, Polk Co.) to west county line;

#### RINGGOLD COUNTY

Thompson River, east county line to north county line;

#### SAC COUNTY

Boyer River, south county line to confluence with unnamed creek (S6, T89N, R37W, Sac Co.);  
Indian Creek, mouth (S24, T87N, R36W, Sac Co.) to north line (S20, T87N, R36W, Sac Co.);  
North Raccoon River, east county line to north county line;

#### SCOTT COUNTY

Lost Creek, mouth (S15, T80N, R5E, Scott Co.) to confluence with unnamed creek (NW 1/4, S7, T79N, R5E, Scott Co.);  
Wapsipinicon River, mouth (S13, T80N, R5E, Scott Co.) to north county line (NE 1/4, S1, T80N, R1E, Scott Co.) (entire length in county);

#### SIOUX COUNTY

Big Sioux River, south county line to north county line;  
Rock River, mouth (S1, T95N, R48W, Sioux Co.) to north county line;

#### STORY COUNTY

South Skunk River, confluence with Squaw Creek (S12, T83N, R24W, Story Co.) to north county line;

#### TAMA COUNTY

Iowa River, east county line to west county line;  
Raven Creek, mouth (S25, T83N, R16W, Tama Co.) to confluence with unnamed creek (S6, T82N, R16W, Tama Co.);

Salt Creek, east county line to confluence with South Branch Salt Creek (S29, T84N, R13W, Tama Co.);

**UNION COUNTY**

Thompson River, south county line to north county line;

Twelve Mile Creek, mouth (S36, T71N, R28W, Union Co.) to Twelve Mile Lake Dam (S12, T72N, R30W, Union Co.);

**VAN BUREN COUNTY**

Cedar Creek, east county line (SE 1/4, S12, T70N, R8W) to east county line (NE 1/4, S12, T70N, R8W);

Des Moines River, south county line to west county line (entire length in county);

**WAPELLO COUNTY**

Des Moines River, south county line to west county line (entire length in county);

South Avery Creek, mouth (S31, T73N, R14W, Wapello Co.) to west county line;

**WARREN COUNTY**

Des Moines River, east county line to north county line (entire length in county);

Middle River, confluence with Clanton Creek (S28, T76N, R25W, Warren Co.) to west county line;

White Breast Creek, east county line to south county line;

**WASHINGTON COUNTY**

Crooked Creek, south county line to confluence with East and West Fork Crooked Creeks (S24, T74N, R7W, Washington Co.);

English River, mouth (S11, T77N, R6W, Washington Co.) to confluence with South English River (S6, T77N, R9W, Washington Co.);

Iowa River, east county line (east line, S36, T77N, R6W, Washington Co.) to north county line (north line, S2, T77N, R6W, Washington Co.) (entire length in Washington Co.);

Long Creek, east county line to confluence with South Fork Long Creek (S26, T75N, R6W, Washington Co.);

Skunk River, south county line (SE 1/4, S36, T74N, R8W, Washington Co.) to west county line (SW 1/4, S6, T74N, R9W, Washington Co.) (entire length in county);

South English River, mouth (S6, T77N, R9W, Washington Co.) to west county line;

**WEBSTER COUNTY**

Boone River, mouth (S36, T87N, R27W, Webster Co.) to east county line;

Brushy Creek, west line (S16, T88N, R27W, Webster Co.) to confluence with unnamed creek (S8, T88N, R27W, Webster Co.);

Brushy Creek, mouth (S15, T87N, R27W, Webster Co.) to south line S34, T88N, R27W, Webster Co.;

Deer Creek, mouth (S24, T90N, R29W, Webster Co.) to north line S16, T90N, R29W, Webster Co.;

Des Moines River, south county line to north county line (entire length in county);

Lizard Creek, mouth (S19, T89N, R28W, Webster Co.) to confluence with D.D. #3 (S35, T90N, R30W, Webster Co.);

South Branch Lizard Creek, mouth (S23, T89N, R29W, Webster Co.) to west line S32, T89N, R29W, Webster Co.;

**WINNEBAGO COUNTY**

Winnebago River, south county line to north county line;

**WINNESHIEK COUNTY**

Bear Creek (a.k.a. South Bear Creek), east county line to source (a.k.a. Mestad Springs, S29, T100N, R7W);

Bohemian Creek, mouth to west county line;

Canoe Creek, mouth (S25, T99N, R7W, Winneshiek Co.) to west line of S8, T99N, R8W, Winneshiek Co.;

Coon Creek, mouth to road crossing in NW 1/4, S13, T98N, R7W;

Dry Run, mouth to west line of S36, T98N, R9W;

East Pine Creek, mouth (S28, T100N, R9W) to north county line (S10, T100N, R9W);

Martha Creek, mouth to west line of S13, T99N, R10W;  
Middle Bear Creek, mouth to north line of S16, T100N, R7W;  
Nichols Creek (a.k.a. Bigalk Creek), mouth to west county line;  
North Bear Creek, mouth to north county line;  
North Canoe Creek, mouth to north line of S2, T99N, R8W;  
Paint Creek (a.k.a. Pine Creek), east county line to confluence with unnamed creek (SE 1/4, S11, T99N, R7W, Winneshiek Co.);  
Pine Creek, mouth (S10, T99N, R9W) to north county line;  
Pine Creek, mouth (S26, T99N, R7W) to north line of S21, T99N, R7W;  
Silver Creek, mouth to north line of S26, T100N, R9W;  
Smith Creek (a.k.a. Trout River), mouth (S21, T98N, R7W) to south line of S33, T98N, R7W;  
Ten Mile Creek, mouth to confluence with Walnut Creek (S18, T98N, R9W);  
Trout Creek, mouth (S9, T98N, R7W) to confluence with Smith Creek (S21, T98N, R7W);  
Trout Creek, mouth (S23, T98N, R8W) to confluence with unnamed tributary (a.k.a. Trout Run) in S27, T98N, R8W;  
Turkey River, south county line to west county line;  
Twin Springs Creek, mouth (S17, T98N, R8W) through one half mile reach;  
Unnamed Creek, mouth (SE 1/4, S11, T99N, R7W, Winneshiek Co.) to north line S12, T99N, R7W, Winneshiek Co.;  
Unnamed tributary to Trout Creek (a.k.a. Trout Run), mouth (S27, T98N, R8W, Winneshiek Co.) to south line of S27, T98N, R8W;  
Unnamed tributary to Upper Iowa River (a.k.a. Casey Springs Creek), mouth (S25, T99N, R9W) to west line of S26, T99N, R9W;  
Unnamed tributary to Upper Iowa River (a.k.a. Coldwater Creek), mouth (S32, T100N, R9W) to north county line;  
Upper Iowa River, east county line to west county line;  
Yellow River, east county line to confluence with North Fork Yellow River (S13, T96N, R7W);

**WOODBURY COUNTY**  
Little Sioux River, confluence with Parnell Creek (S25, T86N, R44W, Woodbury Co.) to east county line;  
Maple River, south county line to east county line;

**WORTH COUNTY**  
Deer Creek, east county line to confluence with unnamed creek (east line, S28, T100N, R19W, Worth Co.);  
Elk Creek, mouth (S27, T99N, R20W, Worth Co.) to Highway 105 (S5, T99N, R22W, Worth Co.);  
Shell Rock River, south county line to north county line;  
Winans Creek, mouth (S36, T98N, R22W, Worth Co.) to N/S road crossing (S 1/2, S25, T98N, R22W, Worth Co.);  
Winnebago River, south county line (S32, T98N, R21W, Worth Co.) to south county line (S34, T98N, R22W, Worth Co.) (entire length in county);

**WRIGHT COUNTY**  
Boone River, south county line to confluence with Middle Branch Boone River (S2, T93N, R26W, Wright Co.);  
Eagle Creek, south county line to confluence with Drainage Ditch No. 9 (S30, T91N, R25W, Wright Co.);  
East Fork Iowa River, mouth (S19, T93N, R23W, Wright Co.) to north county line;  
Iowa River, east county line (S13, T90N, R23W, Wright Co.) to confluence with East and West Fork Iowa Rivers (S19, T93N, R23W, Wright Co.) (entire length in county);  
West Fork Iowa River, mouth (S19, T93N, R23W, Wright Co.) to north county line;  
White Fox Creek, south county line to confluence with unnamed creek (E 1/2, SE 1/4, S36, T91N, R25W, Wright Co.).

**567—72.51(455B) Protected stream designation procedure.**

**72.51(1) Eligible petitioners.** Any state agency, governmental subdivision, association or interested person may petition the commission, according to the rules of this division, to designate a stream as a protected stream. However, if the stream had been the subject of a similar petition filed within the past 2 years, the commission shall not accept a petition except upon a majority vote.

**72.51(2) Content of petition.** The petition for protected stream designation shall contain the following: (a) names, addresses, and the telephone numbers of the petitioners; (b) location of the stream nominated for designation; (c) reasons why the stream is nominated, each reason being stated in a separate numbered paragraph; and (d) adequate evidence supporting the reasons for nomination. Eleven copies of the petition shall be filed with the department.

**72.51(3) Department review of petition.** Upon receipt of a petition for designation of a stream as a protected stream, the department shall make an initial determination as to whether the petition complies with 72.51(2) and whether the stream has a sufficient number of environmental amenities listed in 72.51(7) that further investigation is warranted. If the department finds the petition not in compliance with 72.51(7) or that further investigation is not warranted, agency proceedings to designate the nominated stream as protected shall cease and the petitioner shall be notified of the reasons for refusing to accept and act upon the petition. A petitioner aggrieved by the department's decision may appeal the decision within 30 days to an executive committee of at least three commission members.

**72.51(4) Notice of initiation of protected stream designation proceedings.** Upon department acceptance of a petition nominating a stream for protected stream designation, the department shall do the following:

*a. Notice of intended action.* Publish a notice of intended action in the Iowa Administrative Bulletin, the content of which identifies the nominated stream and requests public input into the protected stream designation procedure.

*b. Commission notification.* Notify the commission at the next meeting of the filing of a petition for protected stream designation.

*c. Interested agency notification.* Notify regional planning commissions, county boards of supervisors, city councils, soil conservation districts through which the nominated stream runs, the fish and wildlife division of the department, the soil conservation division of the department of agriculture and land stewardship, the department of agriculture and land stewardship and the geological survey bureau of the department.

*d. Countywide notification.* Publish notice of the filing of the petition in a newspaper of general circulation for two consecutive weeks in each county in which the nominated stream is located.

**72.51(5) Department investigation report.** Upon department acceptance of a petition nominating a stream for protected stream designation, the department shall do the following:

*a. Investigation.* Supervise a field staff investigation of the stream nominated for protected stream status for the purpose of assessing the effect that extending department flood plain regulation would have on the factors listed in 72.51(7);

*b. Report.* File a report with the commission at a monthly commission meeting held within one year after the notice of intended action was published; the report shall specifically state findings of fact or each reason alleged in the petition in support of a protected stream designation and convey a staff recommendation, including any minority recommendations and recommendations of other governmental bodies and interested persons on whether or not the stream should be regulated;

*c. Interagency coordination.* Invite the fish and wildlife division of the department, the geological survey bureau, and any other agency or governmental subdivision expressing an interest in the proceeding to participate in the field investigation and preparation of the report, and request their assessment of whether extension of department jurisdiction over the nominated stream would have either an adverse or beneficial impact on their agency's water resource programs.

**72.51(6) Commission determination.** After receipt of the director's report and the public has had an opportunity to submit written comments and make an oral presentation, the commission shall make a determination in writing whether or not to designate the stream identified in the petition as a protected stream, except that the commission may continue the proceeding as needed to collect or analyze

additional data. The commission's determination shall be based on the factors listed in 72.51(7), as applied to the nominated stream and its flood plain, and to other relevant streams and flood plains located in the same watershed as the nominated stream, as well as any underground water system hydrologically connected to the nominated stream.

**72.51(7) Basis for protected stream designation.** Commission determination of whether or not to classify a stream as a protected stream shall be based on the balancing of the costs and benefits of possible flood plain development as it would affect the following factors: (a) maintenance of stream fishery capacity; (b) water quality preservation; (c) wildlife habitat preservation; (d) flood control; (e) flood plain management; (f) existing flood plain developments; (g) soil erosion control; (h) the needs of agriculture and industry; (i) the maintenance and enhancement of public recreational opportunities; (j) the public's health, welfare and safety; (k) compatibility with the state water plan; (l) property and water rights of landowners; (m) other factors relevant to the control, development, protection, allocation, and utilization of the nominated stream and water hydrologically connected to it.

**567—72.52(455B) Protected stream declassification procedure.** The procedure for removing a stream from the list of protected streams in 72.50(2) of these rules shall be the same as the rules for designation of a stream as a protected stream, except that all notices, investigations and reports shall be addressed to the issue of declassification.

These rules are intended to implement Iowa Code sections 455B.261, 455B.262, 455B.263, 455B.264, 455B.275, 455B.277, 459.102 and 459.301.

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<sup>1</sup> Effective date of 2/23/94 for segments incorporated by **ARC 4559A** in 72.50(2) and 72.52 delayed 70 days by the Administrative Rules Review Committee at their meeting held February 14, 1994.