

Senate File 370 - Introduced

SENATE FILE _____
BY COMMITTEE ON REBUILD IOWA
(SUCCESSOR TO SSB 1289)

Passed Senate, Date _____ Passed House, Date _____
Vote: Ayes _____ Nays _____ Vote: Ayes _____ Nays _____
Approved _____

A BILL FOR

1 An Act relating to flooding by creating an Iowa flood center,
2 allocating duties between the Iowa flood center and the water
3 resources coordinating council, and making appropriations.
4 BE IT ENACTED BY THE GENERAL ASSEMBLY OF THE STATE OF IOWA:
5 TLSB 2304SV 83
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1 1 Section 1. Section 466B.3, subsection 6, paragraph b,
1 2 subparagraph (7), Code 2009, is amended by striking the
1 3 subparagraph.
1 4 Sec. 2. Section 466B.9, Code 2009, is amended to read as
1 5 follows:
1 6 466B.9 RULEMAKING AUTHORITY.
1 7 The department and the department of agriculture and land
1 8 stewardship shall have the power and authority reasonably
1 9 necessary to carry out the duties imposed by this chapter. ~~As~~
~~1 10 to the department, this includes rulemaking authority to carry~~
~~1 11 out the regional watershed assessment program described in~~
~~1 12 section 466B.5. As to the department of agriculture and land~~
~~1 13 stewardship, this includes rulemaking authority to assist in~~
~~1 14 the implementation of community-based subwatershed improvement~~
~~1 15 plans.~~
1 16 Sec. 3. NEW SECTION. 466C.1 DEFINITIONS.
1 17 For purposes of this chapter, unless the context otherwise
1 18 requires:
1 19 1. "Center" means the Iowa flood center established
1 20 pursuant to section 466C.2.
1 21 2. "Council" means the water resources coordinating
1 22 council established in section 466B.3.
1 23 3. "Regional watershed" means the watershed of hydrologic
1 24 unit code scale 8.
1 25 4. "Subwatershed" means a watershed of hydrologic unit
1 26 code scale 12 or smaller.
1 27 5. "Watershed" means a geographic area in which surface
1 28 water is drained by rivers, streams, or other bodies of water.
1 29 Sec. 4. NEW SECTION. 466C.2 IOWA FLOOD CENTER.
1 30 1. The state board of regents shall establish and maintain
1 31 in Iowa City as a part of the state university of Iowa an Iowa
1 32 flood center. In conducting the activities of this chapter,
1 33 the center shall work cooperatively with the department of
1 34 natural resources, the department of agriculture and land
1 35 stewardship, the water resources coordinating council, and
2 1 other state and federal agencies.
2 2 2. The Iowa flood center shall have all of the following
2 3 purposes:
2 4 a. To develop hydrologic models for physically-based flood
2 5 frequency estimation and real-time forecasting of floods,
2 6 including hydraulic models of floodplain inundation mapping.
2 7 b. To establish community-based programs to improve flood
2 8 monitoring and prediction along Iowa's major waterways and to
2 9 support ongoing flood research.
2 10 c. To share resources and expertise of the Iowa flood
2 11 center.
2 12 d. To assist in the development of a workforce in the
2 13 state knowledgeable regarding flood research, prediction, and
2 14 mitigation strategies.
2 15 e. To conduct the activities required by this chapter in

2 16 cooperation with various state and federal agencies.
2 17 Sec. 5. NEW SECTION. 466C.3 REGIONAL WATERSHED
2 18 ASSESSMENT, PLANNING, AND PRIORITIZATION.
2 19 1. The center shall create a regional watershed assessment
2 20 program. The program shall assess all the regional watersheds
2 21 in the state.
2 22 a. Under the program, a statewide assessment shall be
2 23 conducted at the rate of approximately one-third of the
2 24 watersheds in the state per year, and an initial statewide
2 25 assessment shall be completed within three years. Thereafter,
2 26 the center shall review and update the assessments on a
2 27 regular basis.
2 28 b. Each regional watershed assessment shall provide a
2 29 summary of the overall condition of the watershed. The
2 30 information provided in the summary may include land use
2 31 patterns, soil types, slopes, management practices, stream
2 32 conditions, and both point and nonpoint source impairments.
2 33 c. In conducting regional watershed assessments, the
2 34 center may identify and facilitate local data collection to
2 35 support the assessment process.
3 1 2. In conducting the regional watershed assessment
3 2 program, the center shall provide hydrologic and geologic
3 3 information sufficient for the council to prioritize
3 4 watersheds statewide and for the various communities in those
3 5 watersheds to plan remedial efforts in their local communities
3 6 and subwatersheds.
3 7 3. Upon completion of the initial statewide assessment,
3 8 and upon subsequent assessment updates, the center shall
3 9 report the results of the assessment, and any updates, to the
3 10 council and the general assembly, and shall make the report
3 11 available to the public.
3 12 Sec. 6. NEW SECTION. 466C.4 COMMUNITY-BASED SUBWATERSHED
3 13 IMPROVEMENT PLANS.
3 14 1. After the center's completion of the initial regional
3 15 watershed assessment, and after the council's prioritization
3 16 of the regional watersheds, the council shall initiate the
3 17 organization of an interagency integrated water resources
3 18 committee to facilitate the development and implementation of
3 19 local, community-based subwatershed improvement plans.
3 20 2. In facilitating the development of community-based
3 21 subwatershed improvement plans, the interagency integrated
3 22 water resources committee shall, based on the results of the
3 23 regional watershed assessment program, identify critical
3 24 subwatersheds within priority regional watersheds and recruit
3 25 communities, citizen groups, local governmental entities, or
3 26 other stakeholders to engage in the assessment, planning,
3 27 prioritization, and implementation of a local community-based
3 28 subwatershed improvement plan. The interagency integrated
3 29 water resources committee may assist in the formation of a
3 30 group of initial local community-based subwatershed
3 31 improvement plans that can be implemented as pilot projects,
3 32 in order to develop an effective process that can be
3 33 replicated across the state.
3 34 Sec. 7. NEW SECTION. 466C.5 COMMUNITY-BASED SUBWATERSHED
3 35 MONITORING.
4 1 1. After completion of the statewide regional watershed
4 2 assessment and prioritization, and throughout the
4 3 implementation of local community-based subwatershed
4 4 improvement plans, the center shall assist communities with
4 5 the monitoring and measurement of local subwatersheds. The
4 6 monitoring and measurement shall be designed for the
4 7 particular needs of individual communities while considering
4 8 statewide watershed issues.
4 9 2. Local communities in which the center conducts
4 10 subwatershed monitoring shall use the information to support
4 11 subwatershed planning activities, guide supplemental local
4 12 data collection efforts, and identify priority areas needing
4 13 additional resources. Local communities shall collect data
4 14 over time and use the data to evaluate the impacts of their
4 15 management efforts. Data collected, as directed by
4 16 interagency integrated water resources committees, shall be
4 17 integrated into a digital regional watershed framework in
4 18 real-time, or near real-time, by the center for use in
4 19 assessment and planning by all the communities in the
4 20 watershed. The center shall integrate digital regional
4 21 watershed information into a digital statewide framework for
4 22 assessment and planning for state water resources planning.
4 23 Sec. 8. NEW SECTION. 466C.6 DEVELOPMENT OF ADVANCED
4 24 NUMERICAL TOOLS FOR WATER RESOURCES MANAGEMENT.
4 25 1. After completion of the statewide regional watershed
4 26 assessment and prioritization, the center shall develop and

4 27 implement physically based hydrologic models to improve
4 28 watershed and community scale flood prediction and mitigation
4 29 planning.

4 30 a. Physically based hydrologic models shall be used to
4 31 improve understanding of frequency of flood occurrence within
4 32 the state and to guide risk-based flood mitigation planning.

4 33 b. Physically based hydrologic models shall be used in
4 34 conjunction with hydrologic sensor networks to provide
4 35 real-time river discharge forecasts to aid communities in
5 1 implementing flood response plans.

5 2 2. The center shall produce flood inundation maps relating
5 3 the spatial extent of flooding to predicted stream flows.

5 4 a. The center shall perform hydrodynamic simulations of
5 5 river flow to create detailed water surface profiles for use
5 6 in developing high-resolution flood inundation maps. A
5 7 library of inundation maps including but not limited to the
5 8 one hundred year and five hundred year recurrence intervals
5 9 shall be developed and made available along all rivers and
5 10 streams within each watershed. In addition to the static
5 11 library of flood inundation maps, the center shall provide
5 12 real-time forecasted flood inundation maps during the threat
5 13 of severe flooding for imperiled communities.

5 14 b. Flood inundation maps shall be stored in a geospatial
5 15 database and publicly distributed through web-based
5 16 applications.

5 17 Sec. 9. NEW SECTION. 466C.7 COMMUNITY ENGAGEMENT AND
5 18 TRAINING.

5 19 1. The center shall implement statewide programs to
5 20 educate Iowans on water quality, best management practices,
5 21 and flood risk and mitigation.

5 22 2. The center shall provide technical training through
5 23 regional workshops and short courses to water resources
5 24 professionals in state agencies, city and county
5 25 administrators, and private companies. Training shall focus
5 26 on application of hydrologic and water quality monitoring and
5 27 forecasting technologies.

5 28 Sec. 10. APPROPRIATION == IOWA FLOOD CENTER. There is
5 29 appropriated from the general fund of the state to the state
5 30 university of Iowa for the designated fiscal years the
5 31 following amount, or so much thereof as is necessary, to be
5 32 used for the purposes designated:

5 33 For the Iowa flood center, including salaries, support,
5 34 maintenance, and miscellaneous purposes:
5 35 FY 2009=2010 \$ 1,300,000
6 1 FY 2010=2011 \$ 2,300,000

6 2 Sec. 11. Sections 466B.5, 466B.6, and 466B.7, Code 2009,
6 3 are repealed.

6 4 EXPLANATION

6 5 This bill relates to flooding by creating an Iowa flood
6 6 center and allocating duties between the Iowa flood center and
6 7 the water resources coordinating council.

6 8 The bill requires the state board of regents to establish
6 9 and maintain in Iowa City as a part of the state university of
6 10 Iowa an Iowa flood center. The bill provides that the Iowa
6 11 flood center shall develop hydrologic models for physically
6 12 based flood frequency estimation and real-time forecasting of
6 13 floods, including hydraulic models of floodplain inundation
6 14 mapping, establish community-based programs to improve flood
6 15 monitoring and prediction along Iowa's major waterways and to
6 16 support ongoing flood research, share resources and expertise
6 17 of the Iowa flood center, and assist in the development of a
6 18 workforce in the state knowledgeable regarding flood research,
6 19 prediction, and mitigation strategies.

6 20 Currently, the department of natural resources and the
6 21 water resources coordinating council are responsible for
6 22 regional watershed assessment, planning, and prioritization;
6 23 community-based subwatershed improvement plans; and
6 24 community-based subwatershed monitoring. The bill moves many
6 25 of these duties to the Iowa flood center with some
6 26 modifications.

6 27 The bill requires the center to create a regional watershed
6 28 assessment program. The program shall assess all the regional
6 29 watersheds in the state. Under the program, a statewide
6 30 assessment shall be conducted at the rate of approximately
6 31 one-third of the watersheds per year, and shall be completed
6 32 within three years. The bill provides that, in conducting the
6 33 regional watershed assessment program, the center shall
6 34 provide hydrologic and geologic information sufficient for the
6 35 water resources coordinating council to prioritize watersheds
7 1 statewide and for the various communities in those watersheds
7 2 to plan remedial efforts in their local communities and

7 3 subwatersheds. The bill requires the center to report the
7 4 results of the assessment to the council and the general
7 5 assembly, and to make the report available to the public.

7 6 The bill provides that, after the center's completion of
7 7 the initial regional watershed assessment, and after the
7 8 council's prioritization of the regional watersheds, the
7 9 council shall initiate the organization of an interagency
7 10 integrated water resources committee to facilitate the
7 11 development and implementation of local, community-based
7 12 subwatershed improvement plans. The bill provides that, in
7 13 facilitating the development of community-based subwatershed
7 14 improvement plans, the interagency integrated water resources
7 15 committee shall, based on the results of the regional
7 16 watershed assessment program, identify critical subwatersheds
7 17 within priority regional watersheds and recruit communities,
7 18 citizen groups, local governmental entities, or other
7 19 stakeholders to engage in the assessment, planning,
7 20 prioritization, and implementation of a local community-based
7 21 subwatershed improvement plan.

7 22 The bill provides that, after completion of the statewide
7 23 regional watershed assessment and prioritization, and
7 24 throughout the implementation of local community-based
7 25 subwatershed improvement plans, the center shall assist
7 26 communities with the monitoring and measurement of local
7 27 subwatersheds. The bill provides that local communities in
7 28 which the center conducts subwatershed monitoring shall use
7 29 the information to support subwatershed planning activities,
7 30 guide supplemental local data collection efforts, and identify
7 31 priority areas needing additional resources.

7 32 The bill provides that, after completion of the statewide
7 33 regional watershed assessment and prioritization, the center
7 34 shall develop and implement physically based hydrologic models
7 35 to improve watershed and community scale flood prediction and
8 1 mitigation planning. The bill requires the center to produce
8 2 flood inundation maps relating the spatial extent of flooding
8 3 to predicted stream flows.

8 4 The bill requires the center to implement statewide
8 5 programs to educate Iowans on water quality, best management
8 6 practices, and flood risk and mitigation. The bill requires
8 7 the center to provide technical training through regional
8 8 workshops and short courses to water resources professionals
8 9 in state agencies, city and county administrators, and private
8 10 companies.

8 11 The bill appropriates moneys \$1.3 million for FY 2009=2010
8 12 and \$2.3 million for FY 2010=2011 from the general fund of the
8 13 state to the university of Iowa for the Iowa flood center.

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