

Volume 42, Number 20  
Pages 1407–1574  
October 16, 2017

SALUS POPULI SUPREMA LEX ESTO

*“The welfare of the people shall be the supreme law.”*



JOHN R. ASHCROFT  
SECRETARY OF STATE

MISSOURI  
REGISTER

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The *Missouri Register* is published semi-monthly by

**SECRETARY OF STATE**

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ISSN 0149-2942, USPS 320-630; periodical postage paid at Jefferson City, MO  
Subscription fee: \$56.00 per year

POSTMASTER: Send change of address notices and undelivered copies to:

**MISSOURI REGISTER**  
Office of the Secretary of State  
Administrative Rules Division  
PO Box 1767  
Jefferson City, MO 65102

The *Missouri Register* and *Code of State Regulations* (CSR) are available on the Internet. The Register address is [www.sos.mo.gov/adrules/moreg/moreg](http://www.sos.mo.gov/adrules/moreg/moreg) and the CSR is [www.sos.mo.gov/adrules/csr/csr](http://www.sos.mo.gov/adrules/csr/csr). These websites contain rulemakings and regulations as they appear in the paper copies of the Registers and CSR. The Administrative Rules Division may be contacted by email at [rules@sos.mo.gov](mailto:rules@sos.mo.gov).

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February 1, 2018 February 15, 2018	<b>March 1, 2018</b> <b>March 15, 2018</b>	March 31, 2018 March 31, 2018	April 30, 2018 April 30, 2018

Documents will be accepted for filing on all regular workdays from 8:00 a.m. until 5:00 p.m. We encourage early filings to facilitate the timely publication of the *Missouri Register*. Orders of Rulemaking appearing in the *Missouri Register* will be published in the *Code of State Regulations* and become effective as listed in the chart above. Advance notice of large volume filings will facilitate their timely publication. We reserve the right to change the schedule due to special circumstances. Please check the latest publication to verify that no changes have been made in this schedule. To review the entire year's schedule, please check out the website at [www.sos.mo.gov/adrules/pubsched](http://www.sos.mo.gov/adrules/pubsched).

## HOW TO CITE RULES AND RSMO

### RULES

The rules are codified in the *Code of State Regulations* in this system–

<b>Title</b>		<b>Division</b>	<b>Chapter</b>	<b>Rule</b>
3	CSR	10-	4	.115
Department	<i>Code of State Regulations</i>	Agency Division	General area regulated	Specific area regulated

and should be cited in this manner: 3 CSR 10-4.115.

Each department of state government is assigned a title. Each agency or division in the department is assigned a division number. The agency then groups its rules into general subject matter areas called chapters and specific areas called rules. Within a rule, the first breakdown is called a section and is designated as (1). Subsection is (A) with further breakdown into paragraphs 1., subparagraphs A., parts (I), subparts (a), items I. and subitems a.

The rule is properly cited by using the full citation, for example, 3 CSR 10-4.115 NOT Rule 10-4.115.

Citations of RSMo are to the *Missouri Revised Statutes* as of the date indicated.

### ***Code and Register on the Internet***

The *Code of State Regulations* and *Missouri Register* are available on the Internet.

The *Code* address is [www.sos.mo.gov/adrules/csr/csr](http://www.sos.mo.gov/adrules/csr/csr)

The *Register* address is [www.sos.mo.gov/adrules/moreg/moreg](http://www.sos.mo.gov/adrules/moreg/moreg)

These websites contain rulemakings and regulations as they appear in the *Code* and *Registers*.

The Secretary of State shall publish all executive orders beginning January 1, 2003, pursuant to section 536.035.2, RSMo 2016.

## EXECUTIVE ORDER 17-21

WHEREAS, in the coming days and weeks, the St. Louis region may experience periods of unrest that could affect the safety and welfare of Missourians; and

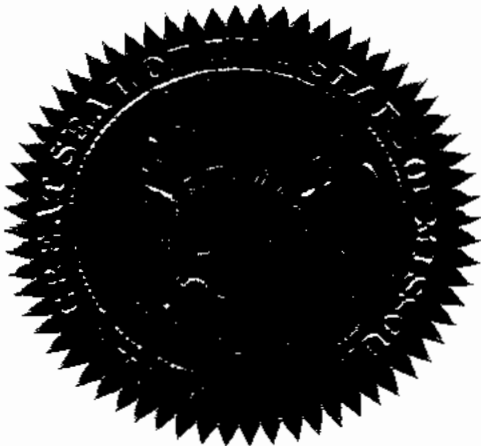
WHEREAS, the State of Missouri is committed to protecting everyone's constitutional right to peacefully protest, while also protecting people's lives, homes, and communities; and

WHEREAS, the State of Missouri must be prepared to appropriately respond.

NOW, THEREFORE, I, ERIC R. GREITENS, GOVERNOR OF THE STATE OF MISSOURI, by virtue of the authority vested in me by the Constitution and laws of the State of Missouri, including section 41.480, RSMo, order and direct the Adjutant General of the State of Missouri, or his designee, to forthwith call and order into active service such portions of the organized militia as he deems necessary to aid the executive officials of Missouri, to protect life and property, and it is further ordered and directed that the Adjutant General or his designee, and through him, the commanding officer of any unit or other organization of such organized militia so called into active service take such action and employ such equipment as may be necessary in support of civilian authorities, and provide such assistance as may be authorized and directed by the Governor of this State.

This Order shall be terminated upon execution of a subsequent Executive Order.

IN WITNESS WHEREOF, I have hereunto set my hand and caused to be affixed the Great Seal of the State of Missouri, in the City of Jefferson, on this 14th day of September, 2017.



Eric R. Greitens  
Governor

ATTEST:

  
John R. Ashcroft  
Secretary of State

**U**nder this heading will appear the text of proposed rules and changes. The notice of proposed rulemaking is required to contain an explanation of any new rule or any change in an existing rule and the reasons therefor. This is set out in the Purpose section with each rule. Also required is a citation to the legal authority to make rules. This appears following the text of the rule, after the word "Authority."

**E**ntirely new rules are printed without any special symbolology under the heading of proposed rule. If an existing rule is to be amended or rescinded, it will have a heading of proposed amendment or proposed rescission. Rules which are proposed to be amended will have new matter printed in boldface type and matter to be deleted placed in brackets.

**A**n important function of the *Missouri Register* is to solicit and encourage public participation in the rulemaking process. The law provides that for every proposed rule, amendment, or rescission there must be a notice that anyone may comment on the proposed action. This comment may take different forms.

**I**f an agency is required by statute to hold a public hearing before making any new rules, then a Notice of Public Hearing will appear following the text of the rule. Hearing dates must be at least thirty (30) days after publication of the notice in the *Missouri Register*. If no hearing is planned or required, the agency must give a Notice to Submit Comments. This allows anyone to file statements in support of or in opposition to the proposed action with the agency within a specified time, no less than thirty (30) days after publication of the notice in the *Missouri Register*.

**A**n agency may hold a public hearing on a rule even though not required by law to hold one. If an agency allows comments to be received following the hearing date, the close of comments date will be used as the beginning day in the ninety- (90-) day-count necessary for the filing of the order of rulemaking.

**I**f an agency decides to hold a public hearing after planning not to, it must withdraw the earlier notice and file a new notice of proposed rulemaking and schedule a hearing for a date not less than thirty (30) days from the date of publication of the new notice.

*the publication of this rule in its entirety would be unduly cumbersome or expensive. The entire text of the material referenced has been filed with the secretary of state. This material may be found at the Office of the Secretary of State or at the headquarters of the agency and is available to any interested person at a cost established by state law.]*

(1) These rules [shall] will govern the issuance of licenses by the [State] Missouri Highways and Transportation Commission (commission) for the establishment, operation, and maintenance of junkyards along the interstate and primary highway system.

[(2) Definitions.

(A) The interstate system means that part of the national system of interstate and defense highways located in Missouri as officially designated by the State Highway Commission in accordance with Title 23 of the United States Code.

(B) The primary system means that portion of the highway system of this state officially designated by the State Highway Commission as being in the federal aid primary highway system.

(C) Junk means old or scrapped copper, brass, rope, rags, bottles, paper, trash, rubber debris, waste, or junk dismantled or wrecked automobiles or parts of those automobiles, iron, steel and other old or scrap ferrous or nonferrous material.

(D) Automobile graveyard means any establishment, area or place of business maintained, used or operated for storing, keeping, buying or selling wrecked, scrapped, ruined or dismantled motor vehicles or parts of those vehicles.

(E) Junkyard means an establishment, area or place of business maintained, operated or used for the storing, keeping, buying or selling of junk or for the operation of an automobile graveyard, garbage dump or sanitary fill.

(3) No junkyard shall be established, operated or maintained within one thousand feet (1000') of the nearest right-of-way line of any interstate or primary highway in this state without a license first being obtained from the State Highway Commission of Missouri. The license must be displayed in a prominent location on the premises upon which the junkyard is located. Licenses are not transferable.]

[(4)](2) Any person, firm, corporation, or political subdivision desiring to continue to maintain and operate a junkyard within one thousand feet (1000') of the nearest right-of-way line of any interstate or primary highway and which is lawfully in existence on August 4, 1966 or any person desiring to establish, operate, and maintain a junkyard, **which was not in existence on August 4, 1966**, within one thousand feet (1000') of the nearest right-of-way line of any interstate or primary highway [shall] will submit an application for a license, along with a fee of ten dollars (\$10), to the [State Highway Commission's district engineer] Missouri Department of Transportation's (department) authorized representative, the application to be in the form prescribed by the [State Highway C]commission. Licenses are not transferable.

[(5)](3) A license will be issued by the [State Highway C]commission for the establishment, operation and maintenance of a [new] junkyard within one thousand feet (1000') of the nearest right-of-way line of any interstate or primary highway provided the junkyard is—

(A) Screened by natural objects, plantings, fences, or other appropriate means so as to render it not visible from any traveled way of the highway involved;

(B) Located within an area which is zoned by authority of law for industrial use[;] or located within an area which has been determined by the commission from actual land use to be an industrial or commercial area; and

Proposed Amendment Text Reminder:

**Boldface text indicates new matter.**

*[Bracketed text indicates matter being deleted.]*

## Title 7—DEPARTMENT OF TRANSPORTATION Division 10—Missouri Highways and Transportation Commission Chapter 5—Junkyards

### PROPOSED AMENDMENT

**7 CSR 10-5.010 Licensing of Junkyards.** The Missouri Highways and Transportation Commission is amending sections (1), (4), (5), (7), (11), (12), and (15); deleting sections (2), (3), (6), (8), (9), (13), and (14); renumbering sections (4), (5), (7), (10) through (12), and (15); and deleting the form which follows the rule in the *Code of State Regulations*.

*PURPOSE:* This amendment removes rule language that duplicates language in sections 226.650 to 226.720, RSMo; and removes unnecessary restrictive language.

*[Editor's Note: The secretary of state has determined that*

(C) Not visible from the right-of-way of any interstate or primary highway[; or].

[(D) Located within an area which has been determined by the State Highway Commission from actual land use to be an industrial area.]

[(6) No license will be issued for the establishment, operation and maintenance of a new junkyard within one thousand feet (1000') of the nearest right-of-way line of any interstate or primary highway which does not comply with one (1) of the requirements in section (5).]

[(7)](4) A license will be issued by the [State Highway C]commission for the operation and maintenance of any junkyard within one thousand feet (1000') of the nearest right-of-way line of any interstate or primary highway, if that junkyard was lawfully in existence on August 4, 1966.

[(8) Any junkyard which, on August 4, 1966, is located within two hundred feet (200') of the nearest right-of-way line of any interstate or primary highway, and which is visible from the highway, and is not screened by a tight board fence or any other screening fence sufficient to screen the material kept in the junkyard from the view of persons using the highway on foot or in vehicle shall not be considered to be a junkyard lawfully in existence on August 4, 1966 and no license will be issued for the operation and maintenance of that junkyard except that this section shall not apply to junkyards located in any incorporated town, village or city which complies with local zoning laws.

(9) Every application submitted for the establishment, operation and maintenance of a new junkyard or the continued operation and maintenance of an existing junkyard shall be accompanied by a legal description of the land upon which the junkyard is or is to be established. The State Highway Commission may require the applicant to obtain a survey by a registered land surveyor of the land upon which the junkyard to be licensed is operated.]

[(10)](5) Any license issued for the continued operation and maintenance of a junkyard lawfully in existence on August 4, 1966 will not permit the licensee to expand the junkyard operation or to store additional junk outside the licensed area.

[(11)](6) All licenses issued pursuant to these rules [shall] will expire on the [thirty-]first day of [December] January following the date of issue of the license.

[(12)](7) Licenses may be annually renewed [from year-to-year on the] upon payment of the required license fee of ten dollars (\$10) in advance. Any license [which is permitted to] will expire [by the] upon nonpayment of the required license fee and may not be renewed [after that except upon application and a showing that the junkyard complies with the requirements for the establishment of a new junkyard as set out in section (5) of this rule].

[(13) An annual fee of ten dollars (\$10), payable in advance, will be required for the issuance of all licenses for the operation of junkyards. In the event that the license period is less than one (1) year, a pro rata part of the annual fee computed from the first of the month immediately preceding the due date of the license will be charged. The fee shall be payable by cashier's check or money order, made payable to Director of Revenue, Credit State Road Fund. Cash will be accepted only at the district office. The fee and the application shall be submitted to the district office having jurisdiction over the area in which the junkyard is or is to be located.

[(14) Any person applying for a license for the establishment, operation or maintenance of a junkyard on the basis that the junkyard is located in an area zoned for industrial use will be required to submit proof from the agency having charge of the enforcement of the zoning laws, ordinances or regulations in the area where the junkyard is located that the junkyard complies with the applicable zoning laws.]

[(15)](8) A junkyard will not be considered as adequately screened under subsection [(5)](3)(A) of this rule unless any fence used as a screen is of sufficient height and density to completely obstruct the view from the traveled portions of the highway into the area upon which the junkyard is operated or unless any plantings or natural growth consists of sufficient nondeciduous growth and is of a height and density that the contents of the junkyard are not visible from the traveled ways of the interstate or primary highway during all seasons of the year. In the event the screening of any junkyard is permitted to deteriorate so as to render it ineffective as a proper screen, the license will be revoked and terminated. Screening, whether by fence or vegetation, must surround all that part of the perimeter of the junkyard across which persons traveling upon the traveled ways of the interstate or primary highway would have a view of the junkyard area. It will be the responsibility of the licensee to properly repair and maintain the screening of the junkyard and in the event a screen or any portion of the screen deteriorates or is destroyed or damaged, or becomes ineffective, so as to render it inadequate as a proper screen, the license will be revoked and terminated unless proper steps are taken by the licensee to repair or replace the screen or make other adjustments within sixty (60) days after the receipt of written notice of violation from the [district engineer of the State Highway Commission] department's authorized representative. [No license will be renewed if the screening has been permitted to deteriorate so as to render it ineffective as a proper screen, in which event that junkyard will be considered as unlawful under sections 226.700 and 226.710, RSMo.]

AUTHORITY: section 226.700, RSMo [1986] 2016. Original rule filed Aug. 5, 1966, effective Aug. 15, 1966. Amended: Filed Sept. 8, 2017.

PUBLIC COST: This proposed amendment will not cost state agencies or political subdivisions more than five hundred dollars (\$500) in the aggregate.

PRIVATE COST: This proposed amendment will not cost private entities more than five hundred dollars (\$500) in the aggregate.

NOTICE TO SUBMIT COMMENTS: Anyone may file a statement in support of or in opposition to this proposed amendment with the Missouri Highways and Transportation Commission, Pamela J. Harlan, Secretary to the Commission, 105 W. Capitol Avenue, PO Box 270, Jefferson City, MO 65102 or Pamela.Harlan@modot.mo.gov. To be considered, comments must be received within thirty (30) days after publication of this notice in the Missouri Register. No public hearing is scheduled.

Title 7—DEPARTMENT OF TRANSPORTATION  
Division 10—Missouri Highways and Transportation  
Commission  
Chapter 6—Outdoor Advertising

PROPOSED AMENDMENT

7 CSR 10-6.020 Directional and Other Official Signs. The Missouri Highways and Transportation Commission is amending subsections (2)(D), (5)(A), and (7)(A) through (7)(F).

*PURPOSE:* This amendment removes unnecessary restrictive language.

(2) Categories of Directional and Other Official Signs. Directional and other official signs include the following five (5) classes of signs:

(D) Public service signs are signs located on school bus stop shelters *[which shall—]* that identify the donor, sponsor, or contributor of the shelters; contain public service messages, *[which shall]* occupying not less than fifty percent (50%) of the area of the sign; contain no other message; and *[be]* are located on school bus shelters which are authorized or approved by city, county, or state law, regulation, or ordinance and at places approved by the city, county or state agency controlling the highway involved; and

(5) Standards for Service Club and Religious Notices.

(A) Size. Any number of displays or emblems may be secured to a single structure. Each display or emblem *[shall]* will not exceed eight (8) square feet in area. Note: For multiple emblem signs to be considered fee exempt, the total outdoor advertising display area on each side must be less than seventy-six (76) square feet.

(7) Standards for Directional Signs. The following standards apply only to directional signs:

(A) General. The following directional signs are *[prohibited]* not allowed: signs advertising activities that are illegal under federal or state laws or regulations in effect at the location of those signs or at the location of those activities; signs which obstruct or interfere with the driver's view of approaching, merging, or intersecting traffic; signs which move or have any animated or moving parts; signs located in rest areas, parklands, or scenic areas; and signs not lawfully existing under section 226.550.2., RSMo, or unlawful signs under section 226.580, RSMo;

(B) Size. No sign *[shall]* may exceed the following limits: maximum area—one hundred and fifty (150) square feet; maximum height—twenty feet (20'); and maximum length—twenty feet (20'). All dimensions include border and trim but exclude supports;

(C) Lighting. Signs may be illuminated, subject to the following restrictions: signs which contain, include, or are illuminated by any flashing, intermittent, or moving lights are *[prohibited]* not allowed; signs which are not effectively shielded so as to prevent beams or rays of light from being directed to any portion of the traveled way of an interstate or primary highway or which are of an intensity or brilliance as to cause glare or to impair the vision of the driver of any motor vehicle, or which otherwise interfere with any driver's operation of a motor vehicle are *[prohibited]* not allowed; and no sign may be so illuminated as to interfere with the effectiveness of or obscure an official traffic sign, device, or signal;

(D) Spacing. No directional sign may be located within two thousand feet (2,000') of an interchange or intersection at grade along the interstate system or freeway primary highway (measured along the interstate or freeway primary highway from the nearest point of the beginning or ending of pavement widening at the exit from or entrance to the main traveled way). No directional sign may be located within two thousand feet (2,000') of a rest area, parkland, or scenic area; no two (2) directional signs facing the same direction of travel *[shall]* may be spaced less than one (1) mile apart. Not more than three (3) directional signs facing the same direction of travel may be erected along a single route approaching the activity or attraction. Signs located adjacent to the interstate system *[shall]* will be within seventy-five (75) air miles of the activity or attraction. Signs located adjacent to the primary system *[shall]* will be within fifty (50) air miles of the activity or attraction;

(E) Message Content. The message on directional signs *[shall be]* is limited to the identification of the attraction or activity and directional messages useful to the traveler in locating the attraction or activity, such as mileage, route numbers, or exit numbers. Descriptive words or phrases and pictorial or photographic representations of the activity or attraction, or its environs are *[prohibited]* not authorized and will disqualify the sign from being maintained as a directional

sign; and

(F) Selection Method and Criteria.

1. Criteria. Activities and attractions qualifying for directional signing *[shall be]* are limited to—public places owned or operated by federal, state, or local governments or their agencies; publicly- or privately-owned natural phenomena, historic, cultural, scientific, educational, and religious sites; and areas of natural scenic beauty or naturally suited for outdoor recreation. *[Privately-owned activities or attractions must be deemed by the commission to be nationally or regionally known and of outstanding interest to the traveling public.]*

2. Selection. To promote highway safety, the commission *[shall]* determines those public and private activities and attractions that are nationally or regionally known and of outstanding interest to the traveling public, which qualify for directional signing. After filing an application for a directional sign permit, the applicant may petition the commission to determine whether or not a specific public or private activity or attraction is eligible for directional signing. The petition may be in letter form and *[shall]* will include: a statement by the owner of the activity or attraction describing the activity or attraction and evidence that the activity or attraction is nationally or regionally known and is of outstanding interest to the traveling public. In the case of any publicly-owned activity or attraction, the petition *[must also be accompanied by]* will also have the written consent or approval of the federal, state, or local political subdivision having legal authority or control over the activity or attraction where the authority is not the applicant requesting that the activity or attraction be designated as eligible for directional signing. The commission may grant the applicant, upon request, a public hearing to aid the commission in reaching a decision of whether or not the activity or attraction qualifies for directional signing. This hearing would be informal and would not be subject to the procedural requirements of Chapter 536, RSMo. *[In exceptional cases, t]The commission may require review and concurrence by the United States Secretary of Transportation before reaching a decision. Petitions and requests for public hearing [must] will be in writing and addressed to the department's authorized representative.*

*AUTHORITY:* sections 226.150, *[RSMo 2000,]* and *[sections] 226.500–226.600, RSMo [2000 and Supp. 2013] 2016. Original rule filed May 16, 1977, effective Oct. 15, 1977. For intervening history, please consult the Code of State Regulations. Amended: Filed Sept. 8, 2017.*

*PUBLIC COST:* This proposed amendment will not cost state agencies or political subdivisions more than five hundred dollars (\$500) in the aggregate.

*PRIVATE COST:* This proposed amendment will not cost private entities more than five hundred dollars (\$500) in the aggregate.

*NOTICE TO SUBMIT COMMENTS:* Anyone may file a statement in support of or in opposition to this proposed amendment with the Missouri Highways and Transportation Commission, Pamela J. Harlan, Secretary to the Commission, 105 W. Capitol Avenue, PO Box 270, Jefferson City, MO 65102 or Pamela.Harlan@modot.mo.gov. To be considered, comments must be received within thirty (30) days after publication of this notice in the Missouri Register. No public hearing is scheduled.

**Title 7—DEPARTMENT OF TRANSPORTATION**  
**Division 10—Missouri Highways and Transportation**  
**Commission**  
**Chapter 6—Outdoor Advertising**

**PROPOSED AMENDMENT**

**7 CSR 10-6.030 On-Premises Signs.** The Missouri Highways and



Transportation Commission is amending subsection (2)(E).

*PURPOSE: This amendment removes unnecessary restrictive language.*

(2) Criteria. Pursuant to section 226.520(2), RSMo, on-premises signs are exempt from the control of outdoor advertising.

(E) Cessation of On-Premises Activity. To promote highway safety, upon the cessation or termination of a business activity within the regulated area along the primary and interstate highway system, the sign owner *[shall have]* has thirty (30) days to remove on-premises advertising. After thirty (30) days, the sign will no longer qualify as an on-premises sign and will be subject to the same conditions and requirements as off-premises outdoor advertising signs. The cessation or termination of a business activity does not constitute a changed condition so as to render an on-premises sign a nonconforming outdoor advertising sign.

*AUTHORITY: sections 226.150, [RSMo 2000,] and [sections] 226.500–226.600, RSMo [2000 and Supp. 2013] 2016. Original rule filed Feb. 1, 1973, effective March 2, 1973. For intervening history, please consult the Code of State Regulations. Amended: Filed Sept. 8, 2017.*

*PUBLIC COST: This proposed amendment will not cost state agencies or political subdivisions more than five hundred dollars (\$500) in the aggregate.*

*PRIVATE COST: This proposed amendment will not cost private entities more than five hundred dollars (\$500) in the aggregate.*

*NOTICE TO SUBMIT COMMENTS: Anyone may file a statement in support of or in opposition to this proposed amendment with the Missouri Highways and Transportation Commission, Pamela J. Harlan, Secretary to the Commission, 105 W. Capitol Avenue, PO Box 270, Jefferson City, MO 65102 or Pamela.Harlan@modot.mo.gov. To be considered, comments must be received within thirty (30) days after publication of this notice in the Missouri Register. No public hearing is scheduled.*

**Title 7—DEPARTMENT OF TRANSPORTATION  
Division 10—Missouri Highways and Transportation  
Commission  
Chapter 6—Outdoor Advertising**

**PROPOSED AMENDMENT**

**7 CSR 10-6.040 Outdoor Advertising in Zoned and Unzoned Commercial and Industrial Areas.** The Missouri Highways and Transportation Commission is amending sections (2), (4), (5), (6), and (7).

*PURPOSE: This amendment removes unnecessary restrictive language and modifies the static display time for an automatic changeable display or digital technology.*

(2) Criteria for Determination of Zoned and Unzoned Commercial and Industrial Areas.

(C) Primary Use Test.

1. In General. In order for an area to qualify as an unzoned commercial or industrial area, the primary use or activity conducted on the property must be of a type customarily and generally required by local comprehensive zoning authorities in Missouri to be restricted as a primary use to areas which are zoned industrial or commercial. The fact that an activity may be conducted for profit in the area is not determinative of whether or not an area is an unzoned commercial or industrial area. Activities incidental to the primary use of

the property, such as a kennel or repair shop in a building or on property which is used primarily as a residence, do not constitute commercial or industrial activities for the purpose of determining the primary use of an unzoned area even though income is derived from the activity. If, however, the activity is primary and local comprehensive zoning authorities in Missouri would customarily and generally require the use to be restricted to a commercial or industrial area, then the activity constitutes a commercial or industrial activity for purposes of determining the primary use of the property even though the owner or occupant of the land may also live on the property.

2. Visible. The purported commercial or industrial activity must be visible from the main-traveled way *[within the boundaries of that unzoned commercial or industrial area]* by a motorist of normal visual acuity traveling at the maximum posted speed limit on the main-traveled way of the highway.

3. Recognizable. The purported commercial or industrial activity must be recognizable as a commercial or industrial enterprise as viewed from both directions of travel of the adjacent interstate or primary highway. In addition, the activity must comply with each of the following:

A. Structure and grounds requirements for business or office—

(I) *[Area. Any structure to be used as a business or office must have a]* An enclosed area of two hundred (200) square feet or more;

(II) *[Foundation. Any structure to be used as a business or office must be a]* Affixed on a slab, piers, or foundation in accordance with minimum local building code requirements;

(III) *[Access. Any structure to be used as a business or office must have a]* Approved access from a roadway and readily accessible by the motorist to a defined customer parking lot adjacent to the business building;

(IV) *[Utilities. Any structure to be used as a business or office must have n]* Normal utilities. Minimum utility service shall include: business telephone, electricity, restroom, water service, and waste water disposal, all in compliance with appropriate local, state, and county rules;

(V) *[Identification. The purported enterprise must be i]* Identified as a commercial or industrial activity which may be accomplished by on-premises signing or outside visible display of product;

(VI) *[Use. Any structure to be used as a business or office must be u]* Used exclusively for the purported commercial or industrial activity; and

(VII) *[Mobile Home or Recreational Vehicle.] Removal of /A/* all wheels, axles, and springs *[must be removed] on mobile home or recreational vehicles;*

B. Activity requirements. In order to be considered a commercial or industrial activity for the purpose of outdoor advertising regulation, the following conditions must be met:

(I) An owner or employee *[must be]* on the premises for at least twenty (20) hours per week and these hours *[must be]* posted on the premises;

(II) The purported activity or enterprise *[shall]* maintain all local business licenses, occupancy permits, sales tax, and other records as may be required by applicable state, county, or local law or ordinance;

(III) A sufficient inventory of products *[must be]* maintained for immediate sale or delivery to the consumer. If the product is a service, it *[must]* will be available for purchase on the premises; and

(IV) The purported activity or enterprise *[must]* will be in active operation a minimum of one hundred eighty (180) days prior to the issuance of any outdoor advertising permit. The one hundred eighty- (180-) day time frame begins when the business activity is in compliance with all business requirements as set forth in sections 226.500 to 266.600, RSMo and this rule.

(4) A permit may be granted for an automatic changeable display or digital technology. To promote highway safety, automatic changeable displays and digital technology *[shall]* **will** meet the following conditions:

(A) The static display time for each message is a minimum of *[ten (10)]* **eight (8)** seconds;

(B) The time to completely change from one (1) message to the next for an automatic changeable display is a maximum of two (2) seconds, and the time to completely change from one (1) message to the next for digital technology *[shall be]* **is** instantaneous with no discernible time gaps between displays;

(C) The change of message *[must]* occurs simultaneously for the entire sign face;

(D) The outdoor advertising structure meets all other requirements in sections 226.500 to 226.600, RSMo, and this rule. Any such sign *[shall]* **will** be designed such that the sign will freeze in one (1) position if a malfunction occurs;

(G) No projected image(s) or message(s) *[shall]* appears to move or be animated;

(H) The sign luminance *[shall]* **will** not exceed three hundred (300) candelas per square meter in full white mode between the periods of sunset to sunrise as calculated by the United States Naval Observatory; and

(I) In accordance with section 226.541, RSMo, if allowed by local regulations, a conforming out of standard sign may be upgraded with digital technology provided—

1. Up to twenty percent (20%) of the sign face, not to exceed one hundred sixty (160) square feet of area may be upgraded with digital technology for displaying text or numbers; or

2. More than twenty percent (20%) of the sign face may be upgraded with digital technology only if it maintains a distance of at least one thousand four hundred feet (1,400') from any other such digital technology display sign in which more than twenty percent (20%) of the sign face contains digital technology. Permit owners *[shall]* **will** submit a written request to upgrade more than twenty percent (20%) of the sign face with digital technology and obtain approval prior to making any changes to the sign. Written upgrade requests will be time and date stamped upon their receipt and priority in contested areas will be assigned in chronological order. If granted, the approval to upgrade to digital technology will expire twelve (12) months from the date it is issued.

(5) Reconstruction or Repair of Conforming out of Standard Signs. Conforming out of standard signs *[shall]* **will** not be substantially rebuilt as provided in section 226.541, RSMo. A conforming out of standard sign that is substantially rebuilt *[shall]* **will** be considered unlawful and any permit issued by the commission for the sign *[shall be]* voided and the fee *[shall be]* retained by the commission.

(6) Moratorium of New Outdoor Advertising Permits.

(B) For purposes of the moratorium, completion of construction as used in section 226.541, RSMo, *[shall]* **will** mean when a final inspection is performed by the commission and all construction is determined to be completed to the satisfaction of the commission without any requested changes or corrections.

(7) Sign Reset Agreement Program. For the purposes of implementing the sign reset agreement program pursuant to section 226.541, RSMo, the following shall apply:

(A) A sign permit amendment *[shall]* **will** be issued only to qualifying signs that are displaced within the construction limits of any phase or portion of construction of any street or highway where funding for right-of-way acquisition is approved by the commission under the Statewide Transportation Improvement Program;

(B) Reset signs *[must]* **will** be reconstructed of the same type materials and may not exceed the square footage of the original sign structure as it existed on the date of the Notice of the Intended Acquisition.

*AUTHORITY: sections 226.150, [RSMo 2000,] and [sections] 226.500–226.600, RSMo [2000 and Supp. 2013] 2016. Original rule filed Feb. 6, 1974, effective March 8, 1974. For intervening history, please consult the Code of State Regulations. Amended: Filed Sept. 8, 2017.*

*PUBLIC COST: This proposed amendment will not cost state agencies or political subdivisions more than five hundred dollars (\$500) in the aggregate.*

*PRIVATE COST: This proposed amendment will not cost private entities more than five hundred dollars (\$500) in the aggregate.*

*NOTICE TO SUBMIT COMMENTS: Anyone may file a statement in support of or in opposition to this proposed amendment with the Missouri Highways and Transportation Commission, Pamela J. Harlan, Secretary to the Commission, 105 W. Capitol Avenue, PO Box 270, Jefferson City, MO 65102 or Pamela.Harlan@modot.mo.gov. To be considered, comments must be received within thirty (30) days after publication of this notice in the Missouri Register. No public hearing is scheduled.*

**Title 7—DEPARTMENT OF TRANSPORTATION**  
**Division 10—Missouri Highways and Transportation**  
**Commission**  
**Chapter 6—Outdoor Advertising**

**PROPOSED AMENDMENT**

**7 CSR 10-6.050 Outdoor Advertising Beyond Six Hundred Sixty Feet (660') of the Right-of-Way.** The Missouri Highways and Transportation Commission is amending section (3).

*PURPOSE: This amendment removes unnecessary restrictive language.*

(3) Determination of Purpose.

(A) **Criteria.** The department's authorized representative shall determine under section 226.527, RSMo, when a sign is erected with the purpose of its message being read from the main-traveled way of an interstate or primary highway[.]

*[[A) Criteria. The determination shall be made]* after consideration of, but not limited to, the following and any other relevant criteria:

1. Angle. The positioning or angle of a sign to an adjacent highway;

2. Size. The distance of the sign from the controlled highway in relation to the size of the sign. If a sign is large enough so that its message can be read from the highway, it may be assigned to that highway;

3. Message content. Whether or not the sign's message is applicable to a particular highway;

4. Physical obstructions. The presence of or selective removal of physical obstructions, natural or man-made, impairing a motorist's view of the sign from the highway; and

5. Exposure time. The period of time a motorist traveling on the adjacent highway at the maximum posted speed limit would be exposed to the sign's message. A sign which cannot be read from the adjacent highway should not be assigned to that highway.

(B) Multiple Highways. A sign may be visible or erected, or both, with the purpose of its message being read from two (2) or more interstate or primary highways. These signs must comply with the sizing, lighting, spacing, location, and permit requirements applicable to each interstate or primary highway. To promote highway safety, where there is a conflict between sizing, lighting, spacing, or location requirements of sections 226.500–226.600, RSMo, the most restrictive requirements *[shall]* prevail.

*AUTHORITY: sections 226.150, [RSMo 2000,] and [sections] 226.500–226.600, RSMo [2000 and Supp. 2013] 2016. Original rule filed May 16, 1977, effective Oct. 15, 1977. For intervening history, please consult the Code of State Regulations. Amended: Filed Sept. 8, 2017.*

*PUBLIC COST: This proposed amendment will not cost state agencies or political subdivisions more than five hundred dollars (\$500) in the aggregate.*

*PRIVATE COST: This proposed amendment will not cost private entities more than five hundred dollars (\$500) in the aggregate.*

*NOTICE TO SUBMIT COMMENTS: Anyone may file a statement in support of or in opposition to this proposed amendment with the Missouri Highways and Transportation Commission, Pamela J. Harlan, Secretary to the Commission, 105 W. Capitol Avenue, PO Box 270, Jefferson City, MO 65102 or Pamela.Harlan@modot.mo.gov. To be considered, comments must be received within thirty (30) days after publication of this notice in the Missouri Register. No public hearing is scheduled.*

**Title 7—DEPARTMENT OF TRANSPORTATION  
Division 10—Missouri Highways and Transportation  
Commission  
Chapter 6—Outdoor Advertising**

**PROPOSED AMENDMENT**

**7 CSR 10-6.060 Nonconforming Signs.** The Missouri Highways and Transportation Commission is amending subsections (3)(A) through (3)(D), and (3)(G).

*PURPOSE: This amendment removes unnecessary restrictive language.*

(3) Criteria for Maintenance of Nonconforming Signs. Reasonable maintenance and repair of nonconforming signs is permissible, however, violation of any one (1) or more of the following subsections (3)(A)–(F) of this rule disqualifies any sign from being maintained as a nonconforming sign and subjects it to removal by the commission without the payment of just compensation:

(A) Message Content. Changes of advertising message content are permissible subject to the following:

1. Landmark signs. In order to continue to qualify as a landmark sign after August 13, 1976, the sign's advertising message *[shall]* cannot be substantially changed, except that a change in mileage, address, routing, course, or direction is permissible;

2. On-premises signs. Switching advertising from on-premises activities to off-premises activities does not constitute a changed condition so as to render the sign as nonconforming. A sign that switches from advertising on-premises goods and services to off-premises goods and services must meet all requirements of the law in effect at the time the advertising is changed from on-premises to off-premises activities;

(B) Type of Materials. The type of materials used in the construction of a sign *[shall]* will not be changed after the date the sign becomes a nonconforming sign, except that a change of facing, panels, message, or advertising does not constitute a change of type of materials. The routine replacement of border and trim *[shall be]* is permitted;

(C) Size. The size or area of a sign *[shall]* will not be increased after the date the sign becomes a nonconforming sign. A net decrease in the face of the sign will be permitted.

1. Temporary cutouts and extensions will not be considered a substantial increase in size provided the cutout or extension meets the following criteria:

A. The cutout or extension area is thirty-three percent (33%) or less of the total display area for each side of the sign, prior to the cutout or extension addition. The commission *[shall]* will determine the method used in calculating the percentage of the temporary cutout or extension; and

B. A cutout or extension may be added to either side of a structure for a period of time of no more than three (3) years for each side or the term of the display contract, whichever is the shortest. After a side of an outdoor advertising structure has had a cutout or extension for that time period, a cutout or extension cannot be placed on that side of the structure for a period of six (6) months/.

(D) Relocation or Repair of Nonconforming Signs. Relocation of a nonconforming sign or repair of a deteriorated or damaged nonconforming sign is a new erection as of the date the relocation or repair is completed and these signs must then comply with the then effective sizing, lighting, spacing, location, and permit requirements of sections 226.500–226.600, RSMo. Relocation of a nonconforming sign or repair of a deteriorated or damaged nonconforming sign voids any permit issued by the commission for the sign and the fee *[shall]* will be retained by the commission.

1. Repair of any deteriorated or damaged nonconforming sign after the date the sign becomes a nonconforming sign is *[prohibited]* not authorized. A deteriorated or damaged nonconforming sign is a sign upon which more than fifty percent (50%) of the support pole(s) have been damaged or replaced within a twelve- (12-) month period. A deteriorated or damaged nonconforming sign *[shall be considered]* is unlawful and any permit issued by the commission for the sign *[shall]* will be voided and the fee *[shall]* will be retained by the commission. A nonconforming sign which has only a deteriorated or damaged face *[shall]* is not *[constitute]* a deteriorated or damaged nonconforming sign but *[shall]* remains subject to section 226.580.1(4), RSMo. A nonconforming sign damaged by vandalism may be repaired without being in violation of this section. The sign owner has the burden to prove that the nonconforming sign was damaged by vandalism. Proof of vandalism can be timely reports or complaints to sheriff's or proper police departments. Vandalism for purposes of this rule is the willful destruction of a nonconforming sign by a party other than the sign owner, property owner, or lessor of the sign or business which is advertised on the sign. Any damage to the nonconforming sign due to carelessness or negligence of any party *[shall]* does not constitute vandalism.

A. For monopole signs no more than fifty percent (50%) of the single support pole may be repaired or replaced within a twelve- (12-) month period.

B. The fifty percent (50%) rule applies to the height of the support pole(s) above ground.

2. Any movement of a sign structure *[shall be]* is considered a relocation;

(G) Notice to Terminate Nonconforming Signs. When a sign is maintained in violation of any one (1) or more of subsections (3)(A)–(F), the department's authorized representative *[shall]* will issue a notice to terminate nonconforming sign to the sign owner and the owner or occupant of the real property on which the sign is located/. *The notice to terminate the nonconforming sign shall* identifying the violation of the criteria for maintenance of the nonconforming sign and the available remedial action to correct the violation which may include removal of the sign. The notice to terminate the nonconforming sign *[shall]* will also establish the length of time with a maximum time of sixty (60) days for remedial action or removal of the sign (if a remedial action other than removal of the sign is not available). The notice to terminate the nonconforming sign may designate a time of less than sixty (60) days for remedial action. Any time which is stated in a notice to terminate the nonconforming sign for taking remedial action *[shall]* cannot change the time period to request an administrative hearing. Any person given a notice to terminate the nonconforming sign by the department's authorized representative *[shall be]* is entitled to an administrative hearing pursuant to the provisions of sections 536.067–536.090, RSMo by filing

a written request for hearing with the Secretary of the Missouri Highways and Transportation Commission, PO Box 270, Jefferson City, MO 65102. The request for hearing must be received by the commission secretary within thirty (30) days after receipt of the notice to terminate the nonconforming sign by the applicant. The request for hearing must be sufficient to identify the applicant requesting the hearing and each outdoor advertising structure for which a hearing is requested. The act of mailing the request for hearing does not constitute receipt by the commission secretary. No answer or other response by the commission is necessary. An applicant will not be entitled to a hearing if the applicant fails to request a hearing within thirty (30) days after receipt of the notice to terminate the nonconforming sign. Upon receipt of a request for hearing, the commission secretary *[shall]* forward the request to the hearing examiner for the commission and *[notify]* notifies the department's authorized representative. Hearings for notices to terminate the nonconforming sign *[shall be]* are conducted pursuant to 7 CSR 10-6.090. The permit for any nonconforming sign as defined in 7 CSR 10-6.060 *[shall]* will be surrendered upon removal of the sign.

*AUTHORITY: sections 226.150, [RSMo 2000,] and [sections] 226.500–226.600, RSMo [2000 and Supp. 2013] 2016. Original rule filed May 16, 1977, effective Oct. 15, 1977. For intervening history, please consult the Code of State Regulations. Amended: Filed Sept. 8, 2017.*

*PUBLIC COST: This proposed amendment will not cost state agencies or political subdivisions more than five hundred dollars (\$500) in the aggregate.*

*PRIVATE COST: This proposed amendment will not cost private entities more than five hundred dollars (\$500) in the aggregate.*

*NOTICE TO SUBMIT COMMENTS: Anyone may file a statement in support of or in opposition to this proposed amendment with the Missouri Highways and Transportation Commission, Pamela J. Harlan, Secretary to the Commission, 105 W. Capitol Avenue, PO Box 270, Jefferson City, MO 65102 or Pamela.Harlan@modot.mo.gov. To be considered, comments must be received within thirty (30) days after publication of this notice in the Missouri Register. No public hearing is scheduled.*

**Title 7—DEPARTMENT OF TRANSPORTATION  
Division 10—Missouri Highways and Transportation  
Commission  
Chapter 6—Outdoor Advertising**

**PROPOSED AMENDMENT**

**7 CSR 10-6.070 Permits for Outdoor Advertising.** The Missouri Highways and Transportation Commission is amending sections (2), (4), (5), (6), (7), and (8).

*PURPOSE: This amendment removes unnecessary restrictive language.*

(2) Outdoor Advertising Subject to Permit Requirements.

(A) Permit *[Required]*. To promote highway safety, a sign owner or the owner of the land on which the sign is located, regardless of when the sign was erected, must obtain a permit from the commission for the following outdoor advertising erected or maintained within six hundred sixty feet (660') of the nearest edge of the right-of-way and visible from the main-traveled way of any highway which is a part of the interstate or primary system:

1. Directional and other official signs. (see sections 226.550.1 and .2 and 226.520(1), RSMo, and 7 CSR 10-6.020). Only one (1) permit will be issued for sign structures with multiple displays;

2. Signs located in areas zoned commercial and industrial except on-premises signs (see sections 226.550.1 and .2, RSMo, and 7 CSR 10-6.040(2)(A));

3. Signs located in unzoned commercial or industrial areas except on-premises signs (see sections 226.520(4), 226.540(4) and 226.550.1 and .2, RSMo, and 7 CSR 10-6.040(2)(B)). Only one (1) permit will be issued for multiple sign structures as back-to-back signs, double-faced signs, and V-type signs;

4. Conforming out of standard signs wherever located except on-premises signs (see sections 226.541, RSMo, and 7 CSR 10-6.040); and

5. Nonconforming signs wherever located except on-premises signs (see sections 226.550.1 and .2, RSMo, and 7 CSR 10-6.060).

(B) Multiple Highways. A sign may be visible or erected, or both, with the purpose of its message being read from two (2) or more interstate or primary highways. These signs must comply with the sizing, lighting, spacing, location, and permit requirements applicable to each interstate or primary highway. Where there is a conflict between the sizing, lighting, spacing, or location requirements of sections 226.500–226.600, RSMo, the most restrictive requirements *[shall]* prevail.

(4) Permit Applications and Fees.

(A) Filing of Permit Applications and Permit Fees. Sign owners or owners of the land on which outdoor advertising is located must apply for permits from the commission for outdoor advertising specified by section 226.550, RSMo, (see 7 CSR 10-6.070(2)). Permit applications *[must]* will be:—

1. Timely submitted. For new outdoor advertising to be erected, the application for permit and the permit application fee of two hundred dollars (\$200) *[shall]* will be submitted before erecting or starting construction of any sign *[requiring a permit from the commission]*. For all nonconforming outdoor advertising *[requiring]* needing a permit from the commission and for any other existing outdoor advertising lawfully erected, but for failure to obtain a permit prior to its erection from the commission, the application for permit must be submitted to and received by the department's authorized representative within thirty (30) days of receipt by the applicant of a notice to remove outdoor advertising under section 226.580, RSMo, from the commission specifying the failure to obtain or maintain a permit for a sign for which a permit and biennial inspection is *[required]* necessary by section 226.550, RSMo. Failure of the applicant to timely submit an application for permit *[shall be cause for]* will authorize the department's authorized representative to reject and return the application for permit;

2. Biennial inspection fees. Biennial inspection fees are due in accordance with section 226.550.4, RSMo. Religious organizations, service organizations, veteran organizations, and fraternal organizations, as defined in section 313.005, RSMo, upon submission of a copy of their certification of Internal Revenue Service tax exempt status, may be granted a fee exempt permit provided the display area of the sign is less than seventy-six (76) square feet.

3. Payment Failure. Failure to submit the correct amount of fee by check, draft, or money order payable to "Director of Revenue—Credit State Road Fund" *[shall be]* may cause *[for]* the department's authorized representative to reject and return the application for permit.

4. Documentation and assistance *[required]* upon request. Any applicant *[must submit]* will give to the department's authorized representative, upon written request, written information or documentation, as specified in the request, sufficient for the department's authorized representative to determine whether or not a permit should be issued under section 226.550, RSMo. Also, any applicant may be asked to assist the department's authorized representative in locating the sign location described in an application for permit. Refusal by or failure of an applicant to comply with a request for information, documentation, or assistance *[shall]* will be grounds for the department's authorized representative to reject and return the

application for permit.

5. Misrepresentation of fact. Any misrepresentation of material fact by an applicant on any application for permit *[shall]* will be grounds for the department's authorized representative to reject and return the application for permit.

6. *[All fees must be paid]* Fees. No permit *[shall]* will be granted to any applicant who is delinquent in the payment of any outdoor advertising fees to the commission, including any removal costs or biennial inspection fees associated with any sign.

(5) Informal Hearing on Denial of Permit.

(A) Request for Informal Hearing. If denied a permit, the applicant *[shall]* will have twenty (20) working days to request an informal hearing for the purpose of appealing the denial. The applicant *[shall]* will submit its request for an informal hearing to the Outdoor Advertising Manager, Missouri Department of Transportation, PO Box 270, Jefferson City, MO 65102.

(B) Procedure. If the applicant requests an informal hearing, the department's authorized representative *[shall]* will advise the applicant of the time, date, and place. This is not a contested case under Chapter 536, RSMo. The rules of evidence *[shall]* will not apply at the hearing.

(6) Permits.

(A) Issuance of the Permit. Upon proper application and payment of fee for any sign eligible for a permit, the department's authorized representative *[shall]* will issue a permit. The permit owner must erect the sign, if not already in existence, within two (2) years of the date the permit was issued by the commission and the erected outdoor advertising structure must comply with all current sections of 226.500 through 226.600, RSMo, and 7 CSR 10-6.010 through 7 CSR 10-6.100. This permit is for the erection of a lawful conforming outdoor advertising structure.

(B) Transfer of Permit. When a sign owner transfers ownership of a sign for which a permit is required by section 226.550, RSMo, the new sign owner *[shall]* will notify the commission by filing an application for transfer, along with a ten dollar (\$10) fee on a form supplied by the department's authorized representative. Applications must be completed in full. Incomplete or incorrectly completed application forms may be rejected or returned by the department's authorized representative to the applicant.

(C) Voiding of Permits Without Compensation. Permits may be voided without compensation to be paid to the permit holder under the following conditions:

1. When there has been any misrepresentation of a material fact by the applicant on a permit application and the sign is removed under section 226.580, RSMo;

2. *[The permit for any unbuilt structure shall be voided if]* When the sign, *[complete with]* including message, is not in existence within two (2) years of the date the permit was issued by the commission;

3. When the commission determines that a change has been made to a conforming sign by the sign owner and the sign has been removed under section 226.580, RSMo, or that a conforming out of standard sign has been substantially rebuilt under section 226.541, RSMo; or

4. When the commission determines that a substantial change has been made to a nonconforming sign by the sign owner such that the sign's nonconforming status was terminated and the sign was removed under the commission's administrative rules for maintenance of nonconforming signs.

(D) Voiding of Permits With Compensation. The commission is also authorized to void any permit when the commission determines that such permit has been erroneously issued by department staff in violation of any state law or administrative rule and the outdoor advertising *[shall be]* is subject to removal and compensation *[shall]* is subject to be paid pursuant to section 226.570, RSMo.

(7) Biennial Inspection Fee. A biennial inspection fee *[shall]* will be collected every two (2) years as set forth in section 226.550, RSMo. *The biennial inspection fee must be* and received by the due date on the statement issued from the Missouri Department of Transportation *and*. The fee will be considered delinquent if not paid within sixty (60) days after the due date on the statement. Fees received from any sign owner that owes delinquent fees to the department will be credited to the past due accounts before applying the remainder, if any, toward issuance of a new permit for: outdoor advertising, *vegetation cutting and trimming,* or transfer of ownership of an outdoor advertising permit.

(8) Relocation. Relocation of any sign for any reason whatsoever is a new erection as of the date the relocation is completed and these signs must then comply with the then effective sizing, lighting, spacing, location, and permit requirements of sections 226.500–226.600, RSMo. Relocation of any sign voids any permit issued by the commission for that sign and the fee *[shall]* will be retained by the commission. The department's authorized representative *[shall]* will issue a notice to remove outdoor advertising under section 226.580, RSMo. A new application for permit must be filed with the department's authorized representative, and the sign can only be relocated in compliance with the sizing, lighting, spacing, and location requirements of sections 226.500–226.600, RSMo.

*AUTHORITY: sections 226.150 and 226.530, RSMo [2000] 2016. Original rule filed May 16, 1977, effective Oct. 15, 1977. For intervening history, please consult the Code of State Regulations. Amended: Filed Sept. 8, 2017.*

*PUBLIC COST: This proposed amendment will not cost state agencies or political subdivisions more than five hundred dollars (\$500) in the aggregate.*

*PRIVATE COST: This proposed amendment will not cost private entities more than five hundred dollars (\$500) in the aggregate.*

*NOTICE TO SUBMIT COMMENTS: Anyone may file a statement in support of or in opposition to this proposed amendment with the Missouri Highways and Transportation Commission, Pamela J. Harlan, Secretary to the Commission, 105 W. Capitol Avenue, PO Box 270, Jefferson City, MO 65102 or Pamela.Harlan@modot.mo.gov. To be considered, comments must be received within thirty (30) days after publication of this notice in the Missouri Register. No public hearing is scheduled.*

**Title 7—DEPARTMENT OF TRANSPORTATION  
Division 10—Missouri Highways and Transportation  
Commission  
Chapter 6—Outdoor Advertising**

**PROPOSED AMENDMENT**

**7 CSR 10-6.080 Removal of Outdoor Advertising Without Compensation.** The Missouri Highways and Transportation Commission is amending sections (4), (6), and (7).

*PURPOSE: This amendment removes unnecessary restrictive language.*

(4) Authority to Withdraw Notices. The department's authorized representative is authorized to withdraw any notice to remove outdoor advertising issued by the department under section 226.580, RSMo, or any notice to terminate a nonconforming sign issued by the department under 7 CSR 10-6.060(3)(G) for any one (1) of the following reasons: where the notice to remove was improperly issued by the department because of a mistake of law or fact, where the sign has

been removed or the basis of unlawfulness has been corrected or has ceased to exist, or where it is finally adjudicated that the notice to remove was not authorized by sections 226.500–226.600, RSMo. If a timely request for administrative review of notice to remove outdoor advertising or a notice to terminate nonconforming sign has been made, the department's authorized representative *[shall]* will advise the hearing examiner of any withdrawal of a notice to remove outdoor advertising or a notice to terminate nonconforming sign.

(6) Remedial Action. Any notice to remove outdoor advertising which is issued by the department's authorized representative *[shall]* will specify any available remedial action to correct the violation. *The notice to remove outdoor advertising shall also* and establish the length of time which is available to take the remedial action. Any length of time specified for taking remedial action *[shall]* cannot lengthen the time available for requesting an administrative hearing. The remedial action which is specified in the notice to remove outdoor advertising may include the removal of the violating sign.

(7) Status of Permit. The issuance of a notice to remove outdoor advertising or a notice to terminate nonconforming outdoor advertising *[shall be]* notice that any permit for that outdoor advertising structure *[shall]* will be surrendered upon removal of the structure. No other notice is necessary under these conditions.

*AUTHORITY: sections 226.150, [RSMo 2000,] and [sections] 226.500–226.600, RSMo [2000 and Supp. 2013] 2016. Original rule filed May 16, 1977, effective Oct. 15, 1977. For intervening history, please consult the Code of State Regulations. Amended: Filed Sept. 8, 2017.*

*PUBLIC COST: This proposed amendment will not cost state agencies or political subdivisions more than five hundred dollars (\$500) in the aggregate.*

*PRIVATE COST: This proposed amendment will not cost private entities more than five hundred dollars (\$500) in the aggregate.*

*NOTICE TO SUBMIT COMMENTS: Anyone may file a statement in support of or in opposition to this proposed amendment with the Missouri Highways and Transportation Commission, Pamela J. Harlan, Secretary to the Commission, 105 W. Capitol Avenue, PO Box 270, Jefferson City, MO 65102 or Pamela.Harlan@modot.mo.gov. To be considered, comments must be received within thirty (30) days after publication of this notice in the Missouri Register. No public hearing is scheduled.*

**Title 7—DEPARTMENT OF TRANSPORTATION  
Division 10—Missouri Highways and Transportation  
Commission  
Chapter 6—Outdoor Advertising**

**PROPOSED AMENDMENT**

**7 CSR 10-6.085 Cutting and Trimming of Vegetation on Right-of-Way.** The Missouri Highways and Transportation Commission is amending sections (1), (3), and (4).

*PURPOSE: This amendment removes unnecessary restrictive language and modifies provisions relating to the cutting and trimming of vegetation on right of way to clear a billboard's visibility zone.*

(1) Permits. To promote highway safety, a permit issued by the department's authorized representative is required to cut or trim any vegetation in front of any lawful sign. *[Permits to cut vegetation will be issued only for lawful signs which are at least five (5)*

*years old. Permits to trim trees will be issued only after a lawful sign is at least two (2) years old.]* A vegetation permit may be denied or limited if the plan is deemed to be detrimental to the stability of the state right-of-way as determined by the department's authorized representative.

(A) *[Fee] Performance Bond. [The cost of a permit for trimming and cutting is determined on the basis of the vegetation to be removed. All diameter measurements contained in this rule shall be measured at four and one-half feet (4 1/2') above ground level. There is no fee to trim trees or remove brush and trees with a diameter of less than six inches (6"), but a permit will still be required. The fee to remove each tree with a diameter equal to or greater than six inches (6") is one hundred dollars (\$100) plus an additional one hundred dollars (\$100) for every inch of diameter greater than six inches (6").]* A performance bond in an amount up to one thousand dollars (\$1,000) *[shall be]* is required to ensure restoration of highway right-of-way. *[All fees must be paid prior to the commencement of any tree trimming.]*

*[(B) Scope. Permits will only allow the cutting of vegetation necessary to clear the sign's visibility zone as determined by the department's authorized representative and the applicant at the time the permit is issued. This visibility zone is an area on the right-of-way four hundred fifty feet (450') on interstate and freeway and nonfreeway primary highways. The length is from the edge of the sign face closest to the highway pavement in a direction parallel to the pavement.]*

*[(C)](B) Duration. All permits [shall] expire after [one hundred twenty (120)] three hundred sixty five (365) days.*

(3) Conditions. To promote highway safety, the following conditions *[shall]* apply to trimming and cutting of vegetation on highway right-of-way:

(B) Damage to Right-of-Way. The applicant *[will be held]* is responsible for any damage to the right-of-way. Any destruction of turf *[will]* requires the applicant to restore the right-of-way to a like or better condition, which may require seeding, mulching, or sodding of the right-of-way which has been disturbed;

(C) Herbicides. Only herbicides approved by the department's authorized representative may be used to trim or remove vegetation. The applicant *[must]* will comply with the Missouri Pesticide Use Act, sections 281.005 through 281.115, RSMo.

(D) Destruction of Vegetation. A vegetation permit will be revoked if an applicant destroys desired vegetation due to excessive cutting, trimming, or inappropriate use of herbicides on vegetation. If *[the permit is]* revoked *[due to excessive cutting, trimming, or inappropriate use of herbicides]*, the department will retain and collect against any bonds filed.

(4) Informal Hearing on Denial of Permit to Cut or Trim.

(A) Request for Informal Hearing. If denied a permit to cut or trim vegetation, the applicant *[shall]* will have twenty (20) working days to request an informal hearing for the purpose of appealing the denial. *The applicant shall* by submitting its request for an informal hearing to the Outdoor Advertising Manager, Missouri Department of Transportation, PO Box 270, Jefferson City, MO 65102.

(B) Procedure. If the applicant requests an informal hearing, the department's authorized representative *[shall]* will advise the applicant of the time, date, and place. This is not a contested case under Chapter 536, RSMo. The rules of evidence *[shall]* will not apply at the hearing.

*AUTHORITY: sections 226.150, [RSMo 2000,] and [sections] 226.500–226.600, RSMo [2000 and Supp. 2013] 2016. Original rule filed June 15, 1993, effective Jan. 31, 1994. For intervening history, please consult the Code of State Regulations. Amended: Filed Sept. 8, 2017.*

*PUBLIC COST: This proposed amendment will cost state agencies or political subdivisions approximately twenty-one thousand dollars (\$21,000) a year in the aggregate.*

*PRIVATE COST: This proposed amendment will not cost private entities more than five hundred dollars (\$500) in the aggregate.*

*NOTICE TO SUBMIT COMMENTS: Anyone may file a statement in support of or in opposition to this proposed amendment with the Missouri Highways and Transportation Commission, Pamela J. Harlan, Secretary to the Commission, 105 W. Capitol Avenue, PO Box 270, Jefferson City, MO 65102 or Pamela.Harlan@modot.mo.gov. To be considered, comments must be received within thirty (30) days after publication of this notice in the **Missouri Register**. No public hearing is scheduled.*

**FISCAL NOTE  
PUBLIC COST**

- I. Department Title: 7 – Department of Transportation  
Division Title: 10 – Missouri Highways and Transportation Commission  
Chapter Title: 6 – Outdoor Advertising**

<b>Rule Number and Name:</b>	7 CSR 10-6.085 Cutting and Trimming of Vegetation on Right-of-Way
<b>Type of Rulemaking:</b>	Amended Rule

**II. SUMMARY OF FISCAL IMPACT**

Affected Agency or Political Subdivision	Estimated Cost of Compliance in the Aggregate
Missouri Highways and Transportation Commission / Missouri Department of Transportation	\$21,000 net cost per year

**III. WORKSHEET**

**Potential Net Cost**

Fees associated with the removal of trees by calendar year:

2016 - \$36,700

2015 - \$10,500

2014 - \$21,800

2013 - \$27,310

2012 - \$9,000

5 Year Total: \$105,310

Average: \$21,062/year (round to nearest thousandth) \$21,000/year

**Total Potential Annual Net Cost: \$21,000**

**IV. ASSUMPTIONS**

Currently, the cost of a permit to cut trees with a diameter equal to or great than six (6) inches is one hundred (100) dollars plus an additional one hundred (100) dollars for every inch of diameter greater than six (6) inches. These fees are paid by billboard owners. Between 2012 and 2016, the Missouri Department of Transportation (MoDOT) collected \$105,310 in fees for the removal of trees with a yearly average of \$21,062. The amended rules eliminate this fee, which will result in a yearly average net cost of \$21,062 for MoDOT.



**Title 7—DEPARTMENT OF TRANSPORTATION  
Division 10—Missouri Highways and Transportation  
Commission  
Chapter 6—Outdoor Advertising**

**PROPOSED AMENDMENT**

**7 CSR 10-6.090 Administrative Review of Notices to Remove Outdoor Advertising and to Terminate Nonconforming Signs.** The Missouri Highways and Transportation Commission is amending sections (1), (3), (4), (5), (6), and (9) through (12) and subsection (2)(B).

*PURPOSE:* This amendment removes unnecessary restrictive language.

(1) Request for Administrative Review. Any person given a notice to remove outdoor advertising under section 226.580, RSMo, by the department's authorized representative *[shall]* will be entitled to an administrative hearing under Chapter 536, RSMo, by filing a written request for hearing with the Secretary of the Missouri Highways and Transportation Commission, PO Box 270, Jefferson City, MO 65102. This request for hearing must be received by the commission secretary within *[thirty (30)] sixty (60)* days after receipt of the notice to remove outdoor advertising by the applicant. *The request for hearing* and must be sufficient to identify the person(s) requesting the hearing and the outdoor advertising structure for which the hearing is requested. No answer or other response by the commission is necessary. Upon receipt of the request for hearing, the commission secretary *[shall]* will forward the request to the hearing examiner for the commission.

(2) Authority to Dismiss Request for Administrative Review. The hearing examiner is authorized to dismiss any request for administrative review and terminate any further proceedings for the following reason:

(B) When the applicant has withdrawn the request for administrative review. The applicant *[must]* will submit the withdrawal request in writing to the hearing examiner; or

(3) Bias. If the hearing examiner determines at any stage of the proceeding that s/he has prior knowledge of specific facts of a case that s/he deems would prevent *[the hearing examiner] her/him* from rendering an objective report and order to the commission, s/he *[shall]* will immediately cease to act and the commission *[shall]* will provide an alternate hearing examiner.

(4) Notice of Hearing. The hearing examiner *[shall]* will give written notice of hearing to the applicant and department's authorized representative fixing a time and place for a hearing, at which time the applicant and department's authorized representative may appear and present evidence. The hearing examiner *[shall]* will issue this notice not less than fifteen (15) days prior to the date fixed for hearing. In instances where more than one (1) request for hearing is received from the same person, the hearing examiner may consolidate those hearings in the interest of economy.

(5) Legal Representation *[Required]*. After the request for administrative review is filed with the commission secretary, no person *[shall]* may sign any pleading or brief or *[shall]* appear at any administrative hearing *[in a representative capacity for]* as a legal representative of a corporation, partnership, or another individual unless this person is a licensed attorney in good standing in Missouri.

(6) Discovery. Any party may take and use depositions under section 536.073, RSMo. The hearing examiner *[shall]* will rule on all matters concerning discovery.

(9) Evidence, Argument, and Briefs. The sole issue in a hearing is whether or not a particular sign is an unlawful sign under section 226.580, RSMo or is being maintained in violation of the rules for maintenance of nonconforming signs under 7 CSR 10-6.060. The department *[shall]* will present its evidence first at the hearing in support of its notice to remove outdoor advertising or notice to terminate nonconforming sign *[which must specify the reason the department deems the outdoor advertising to be unlawful]*. After the department presents its evidence, the applicant may present evidence. Any party *[shall have]* has the right of cross-examination. Oral or written evidence must be received in the record to be considered by the commission in reaching its final decision. Any party *[shall be]* is entitled to present oral argument at the hearing. If oral argument is presented, it *[shall]* will be preserved and transcribed in the record for the use of the commission in reaching a final decision. Any party may file a written brief or the hearing examiner may require written briefs to be filed within the time set by the hearing examiner for the use of the commission in reaching a final decision. The hearing examiner may rule on all objections and motions to facilitate submission of the case to the commission for its final decision.

(10) Transcript. At the conclusion of the hearing, the hearing examiner *[shall]* will cause the entire record to be transcribed in sufficient quantities that the original may remain a permanent part of the record. Any party may obtain a copy of the record at the party's expense.

(11) Report and Order. As soon as practical after receipt of the transcript and briefs of the parties, if any, the hearing examiner *[shall]* submits to each member of the commission a suggested report and order for consideration by the commission.

(12) Final Decision. The members of the commission *[shall]* will render a final decision. If briefs or oral arguments are submitted, the members of the commission, in lieu of reading the entire record, may consider those portions of the record cited or referred to in the arguments or briefs to arrive at a final decision. The commission *[shall]* will render its final decision in writing *[which shall be]* supported by competent and substantial evidence upon the whole record *[and which shall be]* subject to judicial review under section 536.100, RSMo.

*AUTHORITY:* sections 226.150, *[RSMo 2000,]* and *[sections] 226.500–226.600, RSMo [2000 and Supp. 2013] 2016. Original rule filed May 16, 1977, effective Oct. 15, 1977. For intervening history, please consult the Code of State Regulations. Amended: Filed Sept. 8, 2017.*

*PUBLIC COST:* This proposed amendment will not cost state agencies or political subdivisions more than five hundred dollars (\$500) in the aggregate.

*PRIVATE COST:* This proposed amendment will not cost private entities more than five hundred dollars (\$500) in the aggregate.

*NOTICE TO SUBMIT COMMENTS:* Anyone may file a statement in support of or in opposition to this proposed amendment with the Missouri Highways and Transportation Commission, Pamela J. Harlan, Secretary to the Commission, 105 W. Capitol Avenue, PO Box 270, Jefferson City, MO 65102 or Pamela.Harlan@modot.mo.gov. To be considered, comments must be received within thirty (30) days after publication of this notice in the Missouri Register. No public hearing is scheduled.

**Title 7—DEPARTMENT OF TRANSPORTATION  
Division 10—Missouri Highways and Transportation  
Commission  
Chapter 6—Outdoor Advertising**

**PROPOSED AMENDMENT**

**7 CSR 10-6.100 Removal or Concealment of Outdoor Advertising Pending Judicial Review.** The Missouri Highways and Transportation Commission is amending sections (1), (2), and (3).

*PURPOSE:* This amendment removes unnecessary restrictive language.

(1) Removal or Concealment of Advertising Message by Owner. If the commission enters its final decision and order to remove the outdoor advertising structure and a petition for judicial review is filed pursuant to sections 226.580 and 536.100, RSMo, the advertising message contained on the structure *[shall]* will be removed or concealed within thirty (30) days of the date of filing by the owner of the structure at the owner's expense until the action for judicial review is finally adjudicated. The owner *[shall be]* is responsible for ensuring the safety of the general public as a result of any such act of removal or concealment. The owner *[shall]* will remove or conceal all sign panels which contain any portion of the advertising message.

(2) Removal or Concealment of Advertising Message by Commission. If the owner of the structure refuses or fails to remove or conceal the advertising message within thirty (30) days of filing a petition for judicial review, the commission may remove or conceal all sign panels which contain any portion of the advertising message and the owner of the structure *[shall be]* is liable for the costs of this process. If the owner refuses to accept the panels after the removal, the commission will store them for a period not to exceed sixty (60) days and recover all costs of transporting and storing the panels from the owner. If after sixty (60) days the owner has not paid all costs associated with the commission's transporting and storing the panels and taken custody of the panels, the commission *[shall]* may dispose of them as it sees fit with no compensation to the owner.

(3) Commission Liability. The commission shall incur no liability for causing the removal or concealment of the advertising message while an action for review is pending, except if the owner finally prevails in its action for judicial review, commission will compensate the owner at the rate the owner is actually receiving income from the advertiser pursuant to written lease from the time the message is removed or concealed until the judicial review is final. In the case of a sign carrying its owner's advertising message, or a lease the commission determines was not entered into pursuant to an arm's length transaction, compensation *[shall]* will be at fair rental value. *Fair rental value shall be* determined by comparing signs of similar size, location, and condition for the period at issue.

*AUTHORITY:* sections 226.150, and 226.500–226.600, RSMo [2000 and Supp. 2002] 2016. Original rule filed June 15, 1993, effective Jan. 31, 1994. Amended: Filed April 15, 2003, effective Nov. 30, 2003. Amended: Filed Sept. 8, 2017.

*PUBLIC COST:* This proposed amendment will not cost state agencies or political subdivisions more than five hundred dollars (\$500) in the aggregate.

*PRIVATE COST:* This proposed amendment will not cost private entities more than five hundred dollars (\$500) in the aggregate.

*NOTICE TO SUBMIT COMMENTS:* Anyone may file a statement in support of or in opposition to this proposed amendment with the Missouri Highways and Transportation Commission, Pamela J.

Harlan, Secretary to the Commission, 105 W. Capitol Avenue, PO Box 270, Jefferson City, MO 65102 or Pamela.Harlan@modot.mo.gov. To be considered, comments must be received within thirty (30) days after publication of this notice in the Missouri Register. No public hearing is scheduled.

**Title 10—DEPARTMENT OF NATURAL RESOURCES  
Division 20—Clean Water Commission  
Chapter 7—Water Quality**

**PROPOSED AMENDMENT**

**10 CSR 20-7.031 Water Quality Standards.** The department is amending sections (1), (3), (4), (5), and (12) of this rule, as well as replacing Table A with Tables A1 and A2, updating Tables B1, B2, B3, C, D, E, F, G, H, I, J, K, L, and M, and removing Table N.

*PURPOSE:* The purpose of this amendment is to update the Missouri Water Quality Standards in accordance with federal regulations at 40 CFR 131.20.

(1) Definitions.

(A) Acute toxicity—Conditions producing adverse effects or lethality on aquatic life following short-term exposure. The acute criteria in Tables A1, A2, and B1 are maximum concentrations which protect against acutely toxic conditions. Acute toxicity is also indicated by exceedence of whole-effluent toxicity (WET) test conditions of paragraph (4)(I)2. For substances not listed in Tables A1, A2, *[or]* and B1, three-tenths (0.3) of the median lethal concentration, or the no observed acute effect concentration for representative species, may be used to determine absence of acute toxicity.

(C) Designated uses—Uses specified for each water body whether or not they are being attained. Uses are designated according to section (2) of this rule and include, but are not limited to—

1. Protection and propagation of fish, shellfish, and wildlife. Streams will be designated to one (1) of the following aquatic habitat protection uses based on watershed size, scale within the stream network, and other hydrological and physical data. Lakes and reservoirs will be designated to one (1) of the following aquatic habitat protection uses based on limnological characteristics (such as temperature) and biological assemblages.

A. Warm Water Habitat (WWH)—Waters in which naturally-occurring water quality and habitat conditions allow the maintenance of a wide variety of warm-water biota[—].

(I) *[Warm water habitat (]/Large River/);]*

(II) *[Warm water habitat (]/Large River/);]*

(III) *[Warm water habitat (]/Small River/);]*

(IV) *[Warm water habitat (]/Creek/);]*

(V) *[Warm water habitat (]/Headwater/); and]*

(VI) *[Warm water habitat (]/Lake or reservoir/).]*

B. Cool Water Habitat (CLH)—Waters in which naturally-occurring water quality and habitat conditions allow the maintenance of a wide variety of cool-water biota. These waters can support a sensitive, high-quality sport fishery (i.e., smallmouth bass and rock bass)[—].

(I) *[Cool water habitat (]/Large River/);]*

(II) *[Cool water habitat (]/Small River/);]*

(III) *[Cool water habitat (]/Creek/);]*

(IV) *[Cool water habitat (]/Headwater/); and]*

(V) *[Cool water habitat (]/Lake or reservoir/).]*

C. Cold Water Habitat (CDH)—Waters in which naturally-occurring water quality and habitat conditions allow the maintenance of a wide variety of cold-water biota. These waters can support a naturally reproducing or stocked trout fishery and populations of other cold-water species[—].

(I) *[Cold water habitat (]/Large River/);]*

(II) *[Cold water habitat (]/Small River/);]*

- (III) [*Cold water habitat (Creek)*];
- (IV) [*Cold water habitat (Headwater)*]; and
- (V) [*Cold water habitat (Lake or reservoir)*].

D. Ephemeral Aquatic Habitat (EAH)—Waters having surface flow or pools in response to precipitation events or snow melt, but without permanent surface flow or permanent pools; naturally-occurring water quality and habitat conditions may allow the maintenance of a limited or transient community of aquatic biota.

E. Modified Aquatic Habitat (MAH)—Waters in which natural habitat conditions have been physically, chemically, or biologically modified; habitat and resulting water quality conditions may prevent the maintenance of a wide variety or diversity of aquatic biota.

F. Limited Aquatic Habitat (LAH)—Waters in which natural habitat conditions have been substantially and irretrievably altered; habitat and resulting water quality conditions do not allow maintenance of aquatic biota, or if present, the community is of poor variety or diversity.

2. Recreation in and on the water. Assignment of these uses does not grant an individual the right to trespass.

A. Whole body contact recreation (WBC)—Activities involving direct human contact with waters of the state to the point of complete body submergence. The water may be ingested accidentally and certain sensitive body organs, such as the eyes, ears, and the nose, will be exposed to the water. Although the water may be ingested accidentally, it is not intended to be used as a potable supply unless acceptable treatment is applied. Waters so designated are intended to be used for swimming, water skiing, or skin diving.

(I) Category A (WBC-A)—This category applies to waters that have been established by the property owner as public swimming areas welcoming access by the public for swimming purposes and waters with documented existing whole body contact recreational use(s) by the public. Examples of this category include, but are not limited to: public swimming beaches and property where whole body contact recreational activity is open to and accessible by the public through law or written permission of the landowner.

(II) Category B (WBC-B)—This category applies to waters designated for whole body contact recreation not contained within category A.

B. Secondary contact recreation (SCR)—Uses include fishing, wading, commercial and recreational boating, any limited contact incidental to shoreline activities, and activities in which users do not swim or float in the water. These recreational activities may result in contact with the water that is either incidental or accidental and the probability of ingesting appreciable quantities of water is minimal.

3. Human health protection (HHP)—Criteria to protect this use are based on the assumption of an average amount of fish consumed on a long-term basis. Protection of this use includes compliance with Food and Drug Administration (FDA) limits for fish tissue, maximum water concentrations corresponding to the  $10^{-6}$  cancer risk level, and other human health fish consumption criteria.

4. Irrigation (IRR)—Application of water to cropland or directly to cultivated plants that may be used for human or livestock consumption. Occasional supplemental irrigation, rather than continuous irrigation, is assumed.

5. Livestock and wildlife protection (LWP)—Maintenance of conditions in waters to support health in livestock and wildlife.

6. Drinking water supply (DWS)—Maintenance of a raw water supply which will yield potable water after treatment by public water treatment facilities.

7. Industrial water supply (IND)—Water to support various industrial uses; since quality needs will vary by industry, no specific criteria are set in these standards.

8. Storm- and flood-water storage and attenuation (WSA)—Wetlands and other waters which serve as overflow and storage areas during flood or storm events slowly release water to downstream areas, thus lowering flood peaks and associated damage to life and

property.

9. Habitat for resident and migratory wildlife species, including rare and endangered species (WHP)—Wetlands and other waters that provide essential breeding, nesting, feeding, and predator escape habitats for wildlife including waterfowl, birds, mammals, fish, amphibians, and reptiles.

10. Recreational, cultural, educational, scientific, and natural aesthetic values and uses (WRC)—Wetlands and other waters that serve as recreational sites for fishing, hunting, and observing wildlife; waters of historic or archaeological significance; waters which provide great diversity for nature observation, educational opportunities, and scientific study; and

11. Hydrologic cycle maintenance (WHC)—Wetlands and other waters hydrologically connected to rivers and streams serve to maintain flow conditions during periods of drought. Waters that are connected hydrologically to the groundwater system recharge groundwater supplies and assume an important local or regional role in maintaining groundwater levels.

(E) Chronic toxicity—Conditions producing adverse effects on aquatic life or wildlife following long-term exposure but having no readily observable effect over a short time period. Chronic numeric criteria in Tables A1, A2, B2, and B3 are maximum concentrations which protect against chronic toxicity; these values shall be considered four- (4-) day averages, with the exception of total ammonia as nitrogen which shall be considered a thirty- (30-) day average. Chronic toxicity is also indicated by exceedence of WET test conditions of subsection (5)(Q). For substances not listed in Tables A1, A2, B2, or B3, commonly used endpoints such as the no-observed effect concentration or inhibition concentration of representative species may be used to demonstrate absence of toxicity.

(F) Class—All waters listed in the Missouri Use Designation Dataset and in Table G and Table H of this rule shall have a hydrologic class. During normal flow periods, some rivers back water into tributaries which do not otherwise have a hydrologic class. These permanent backwater areas are considered to have the same hydrologic class as the water body into which the tributary flows.

1. Class L1—Lakes used primarily for public drinking water supply.

2. Class L2—Major reservoirs.

3. Class L3—Other lakes which are waters of the state. These include both public and private lakes. For effluent regulation purposes, publicly-owned L3 lakes are those for which a substantial portion of the surrounding lands are publicly owned or managed.

4. Class P—Streams that maintain permanent flow even in drought periods.

5. Class P1—Standing-water reaches of Class P streams.

6. Class C—Streams that may cease flow in dry periods but maintain permanent pools which support aquatic life.

7. Class E—Streams that do not maintain permanent surface flow or permanent pools, but have ephemeral surface flow or pools in response to precipitation events.

8. Class W—Wetlands that are waters of the state that meet the criteria in the *Corps of Engineers Wetlands Delineation Manual* (January 1987), and subsequent federal revisions and supplements. Class W waters do not include wetlands that are artificially created on dry land and maintained for the treatment of mine drainage, stormwater control, drainage associated with road construction, or industrial, municipal, or agricultural waste.

*[(H) Existing uses—Those uses actually attained in the water body on or after November 28, 1975, whether or not they are identified in the water quality standards.]*

*[(I)](H) Ecoregion—Ecoregions denote areas of general similarity in ecosystems and in the type, quality, and quantity of environmental resources. They are designed to serve as a spatial framework for the research, assessment, management, and monitoring of ecosystems and ecosystem components. By recognizing the spatial differences in the capacities and potentials of ecosystems, ecoregions stratify the environment by its probable response to disturbance (Bryce,*

Omernik, and Larsen, 1999).

**[(J)](I)** Epilimnion—Zone of atmospheric mixing in a thermostratified lake.

**[(K)](J)** *Escherichia coli* (*E. coli*)—A type of fecal coliform bacteria found in the intestines of animals and humans. The presence of *E. coli* in water is a strong indication of recent sewage or animal waste contamination. Sewage may contain many types of disease-causing organisms (pathogens).

**(K)** Eutrophication—The process by which a body of water becomes enriched in dissolved nutrients, such as nitrogen and phosphorus, that stimulate the excessive growth of algae and other plants. Eutrophication may be accelerated by human activities.

**(L)** Existing uses—Those uses actually attained in the water body on or after November 28, 1975, whether or not they are identified in the water quality standards.

**[(L)](M)** Hypolimnion—Zone beneath the zone of atmospheric mixing in a thermostratified lake.

**[(M)](N)** Lethal concentration<sub>50</sub> (LC<sub>50</sub>)—Concentration of a toxicant which would be expected to kill fifty percent (50%) of the individuals of the test species organisms in a test of specified length of time.

**[(N)](O)** Losing stream—A stream which distributes thirty percent (30%) or more of its flow during low flow conditions through natural processes, such as through permeable geologic materials into a bedrock aquifer within two (2) miles' flow distance downstream of an existing or proposed discharge. Flow measurements to determine percentage of water loss must be corrected to approximate the 7Q10 stream flow. If a stream bed or drainage way has an intermittent flow or a flow insufficient to measure in accordance with this rule, it may be determined to be a losing stream on the basis of channel development, valley configuration, vegetation development, dye tracing studies, bedrock characteristics, geographical data, and other geological factors. Losing streams are *[(listed) identified in [Table J] the digital geospatial dataset 'LOSING\_STREAM' developed by the Missouri Department of Natural Resources, Missouri Geological Survey; additional streams may be determined to be losing by the Missouri Department of Natural Resources.*

**[(O)](P)** Low-flow conditions—Where used in this regulation in the context of mixing zones, the low-flow conditions shall refer to the minimum amount of stream flow occurring immediately upstream of a wastewater discharge and available, in whole or in part, for attenuation of wastewater pollutants.

1. Seven- (7-) day, one- (1-) in-ten- (10-) year low flow (7Q10)—The lowest average flow for seven (7) consecutive days that has a probable recurrence interval of once-in-ten (10) years.

2. Sixty- (60-) day, one- (1-) in-two- (2-) year low flow (60Q2)—The lowest average flow for sixty (60) consecutive days that has a probable recurrence interval of once-in-two (2) years.

3. Thirty- (30-) day, one- (1-) in-ten- (10-) year low flow (30Q10)—The lowest average flow for thirty (30) consecutive days that has a probable recurrence interval of once-in-ten (10) years.

4. One- (1-) day, one- (1-) in-ten- (10-) year low flow (1Q10)—The lowest average flow for one (1) day that has a probable recurrence interval of once-in-ten (10) years.

**[(P)](Q)** Missouri Use Designation Dataset—A digital geospatial dataset used in conjunction with geographic information systems and maintained by the department. This dataset documents the names and locations of the state's rivers, streams, lakes, and reservoirs which have been assigned designated uses. The initial version of this dataset, as adopted on November 6, 2013, reflects Tables G and H plus any additional presumptive uses described in section (2). The dataset will also include information regarding both pending and approved determinations, variances, use attainability analyses, and water quality standards revisions. The dataset uses the geospatial framework provided by the National Hydrography Dataset and is enhanced and supported by hydrological and physical information obtained through the Missouri Resource Assessment Partnership

(MoRAP) and other scientific sources. The dataset is limited in geographic extent to the state of Missouri.

**[(Q)](R)** Mixing zone—An area of dilution of effluent in the receiving water beyond which chronic toxicity criteria must be met.

**[(R)](S)** National Hydrography Dataset (NHD)—A digital vector dataset used in conjunction with geographic information systems to describe the location of rivers, streams, lakes, reservoirs, and other surface water features. As applied in this rule, the term refers to the 1:100,000 scale dataset generated by the United States Geological Survey. This dataset provides the geospatial framework for the Missouri Use Designation Dataset.

**[(S)](T)** Outstanding national resource waters—Waters which have outstanding national recreational and ecological significance. These waters shall receive special protection against any degradation in quality. Congressionally-designated rivers, including those in the Ozark national scenic riverways and the wild and scenic rivers system, are so designated (see Table D).

**[(T)](U)** Outstanding state resource waters—High quality waters with a significant aesthetic, recreational, or scientific value which are specifically designated as such by the Clean Water Commission (see Table E).

**[(U)](V)** Ozark streams—Streams lying within the Ozark faunal region as described in the *Aquatic Community Classification System for Missouri, 1989, Aquatic Series No. 19*, Missouri Department of Conservation, [1989] Jefferson City, MO 65109, which is hereby incorporated by reference and does not include any later amendments or additions. The department shall maintain a copy of the referenced documents and shall make them available to the public for inspection and copying at no more than the actual cost of reproduction.

**[(V)](W)** Reference lakes or reservoirs—Lakes or reservoirs determined by Missouri Department of Natural Resources to be the best available representatives of ecoregion waters in a natural condition with respect to habitat, water quality, biological integrity and diversity, watershed land use, and riparian conditions.

**[(W)](X)** Reference stream reaches—Stream reaches determined by the department to be the best available representatives of ecoregion waters in a natural condition, with respect to habitat, water quality, biological integrity and diversity, watershed land use, and riparian conditions.

**[(X)](Y)** Regulated-flow streams—A stream that derives a majority of its flow from an impounded area with a flow-regulating device.

**[(Y)](Z)** Use Attainability Analysis (UAA)—A structured scientific assessment of the factors affecting the attainment of the use which may include physical, chemical, biological, and economic factors as described in 40 CFR 131.10(g).

**[(Z)](AA)** Variance—A temporary modification to 10 CSR 20-7.031 that is deemed necessary in accordance with section (12) of this rule.

**[(AA)](BB)** Water effect ratio—Appropriate measure of the toxicity of a material obtained in a site water divided by the same measure of the toxicity of the same material obtained simultaneously in a laboratory dilution water.

**[(BB)](CC)** Water hardness—The total concentration of calcium and magnesium ions expressed as calcium carbonate. For purposes of this rule, hardness will be *[determined by the lower quartile (twenty-fifth percentile)] the median* value of a representative number of samples from the water *[body]* in question or from *[a]* similar waters *[body]* at the appropriate stream flow conditions **within the same ecoregion.**

**[(CC)](DD)** Water quality criteria—Chemical, physical, and biological properties of water that are necessary to protect beneficial water uses.

**[(DD)](EE)** Waters of the state—*[All rivers, streams, lakes, and other bodies of surface and subsurface water lying within or forming a part of the boundaries of the state which are not entirely confined and located completely upon lands owned, leased, or otherwise controlled by a single person or*

by two (2) or more persons jointly or as tenants in common and includes waters of the United States lying within the state] As defined in section 644.016, RSMo.

**[(EE)](FF) Wetlands**—Those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas. This definition is consistent with both the United States Army Corps of Engineers wetlands definition at 33 CFR 328.3(b) and the United States Environmental Protection Agency wetlands definition at 40 CFR 232.2(r).

**[(FF)](GG) Whole effluent toxicity tests**—A toxicity test conducted under specified laboratory conditions on specific indicator organisms. To estimate chronic and acute toxicity of the effluent in its receiving stream, the effluent may be diluted to simulate the computed percent effluent at the edge of the mixing zone or zone of initial dilution.

**[(GG)](HH) Zone of initial dilution**—A small area of initial mixing below an effluent outfall beyond which acute toxicity criteria must be met.

**[(HH)](II) Zone of passage**—A continuous water route necessary to allow passage of organisms with no acutely toxic effects produced on their populations.

**[(II)](JJ) Other definitions** as set forth in the Missouri Clean Water Law and 10 CSR 20-2.010 shall apply to terms used in this rule.

(3) Antidegradation. The antidegradation policy shall provide three (3) levels of protection.

(B) Tier Two. For all waters of the state, if existing water quality is better than applicable water quality criteria established in these rules, that existing quality shall be fully maintained and protected. Water quality may be lowered only if the state finds, after full satisfaction of the intergovernmental coordination and public participation requirements, that the lowered water quality is necessary to allow important economic and social development in the geographical area in which the waters are located. In allowing the lowering of water quality, the state shall assure that there shall be achieved the highest statutory and regulatory requirements for all new and existing point sources and all cost-effective and reasonable best management practices for nonpoint source control before allowing any lowering of water quality. This provision allows a proposed new or modified point or nonpoint source of pollution to result in limited lowering of water quality provided that—

1. The source does not violate any of the general criteria set forth in section **[(3)] (4)** of this rule, or any of the criteria for protection of beneficial uses set forth in section **[(4)] (5)** of this rule;

2. The source meets all applicable technological effluent limitations and minimum standards of design for point sources or minimum pollution control practices for nonpoint sources; and

3. The lowering of water quality, in the judgment of the department, is necessary for the accommodation of important economic and social development in the geographical vicinity of the discharge. In making a preliminary determination based on socioeconomic development considerations, the department may consider the potential for regional increases in utility rates, taxation levels, or recoverable costs associated with the production of goods or services that may result from the imposition of a strict no-degradation policy. Consideration may also be given to the possible indirect effects of a policy on per capita income and the level of employment in the geographical vicinity of the proposed pollution source. Any preliminary decision by the department to allow a limited lowering of water quality will be stated as such in a public notice issued pursuant to 10 CSR 20-6.010. Pursuant to that provision, a public hearing will be held in the geographical vicinity of the proposed pollution source, if the department determines there is significant public interest in and need for a hearing.

(D) The three (3) levels of protection provided by the antidegrada-

tion policy in subsections (A) through (C) of this section shall be implemented according to procedures hereby incorporated by reference and known as the “Missouri Antidegradation Rule and Implementation Procedure, [May 2, 2012] July 13, 2016.” No later amendments or additions are included. This document shall be made available to anyone upon written request to the Department of Natural Resources, Water Protection Program, Water Pollution Control Branch, PO Box 176, Jefferson City, MO 65102-0176.

(4) General Criteria. The following water quality criteria shall be applicable to all waters of the state at all times including mixing zones. No water contaminant, by itself or in combination with other substances, shall prevent the waters of the state from meeting the following conditions:

(D) Waters shall be free from substances or conditions in sufficient amounts to result in toxicity to human, animal, or aquatic life. **However, acute toxicity may be allowed by permit in zones of initial dilution, and chronic toxicity may be allowed by permit in mixing zones;**

(E) **Waters shall maintain a level of water quality at their confluences to downstream waters that provides for the attainment and maintenance of the water quality standards of those downstream waters, including waters of another state;**

**[(E)](F)** There shall be no significant human health hazard from incidental contact with the water;

**[(F)](G)** There shall be no acute toxicity to livestock or wildlife watering;

**[(G)](H)** Waters shall be free from physical, chemical, or hydrologic changes that would impair the natural biological community;

**[(H)](I)** Waters shall be free from used tires, car bodies, appliances, demolition debris, used vehicles or equipment, and solid waste as defined in Missouri’s Solid Waste Law, section 260.200, RSMo, except as the use of such materials is specifically permitted pursuant to sections 260.200–260.247, RSMo;

**[(I)](J)** Waters in mixing zones, ephemeral aquatic habitat and waters of the state lacking designated uses shall be subject to the following requirements:

1. The acute toxicity criteria of Tables A1, A2, and B1 and the requirements of subsection (5)(B); and

2. The following whole effluent toxicity conditions must be satisfied:

A. Single dilution method. The percent effluent at the edge of the zone of initial dilution will be computed and toxicity tests performed at this percent effluent. These tests must show statistically-insignificant mortality on the most sensitive of at least two (2) representative, diverse species; and

B. Multiple dilution method. An LC<sub>50</sub> will be derived from a series of test dilutions. The computed percent effluent at the edge of the zone of initial dilution must be less than three-tenths (0.3) of the LC<sub>50</sub> for the most sensitive of at least two (2) representative, diverse species.

(5) Specific Criteria. The specific criteria shall apply to waters contained in Tables G and H of this rule and the Missouri Use Designation Dataset. Protection of drinking water supply is limited to surface waters designated for raw drinking water supply and aquifers. Protection of whole body contact recreation is limited to waters designated for that use.

(A) The maximum chronic toxicity criteria in Tables A1, A2, B2, and B3 shall apply to waters designated for the indicated uses given in the Missouri Use Designation Dataset and Tables G and H, *except for waters designated for Ephemeral Aquatic Habitat or where less stringent criteria have been developed following a use attainability analysis*. All Table A1, A2, B2, and B3 criteria are chronic toxicity criteria, except those specifically identified as acute criteria. Water contaminants shall not cause or contribute to concentrations in excess of these values. Table A1 values listed as health advisory levels shall be used in establishing discharge

permit limits and management strategies until additional data becomes available to support alternative criteria, or other standards are established. However, exceptions may be granted in the following cases:

1. Permanent flow streams when the stream flow is less than 7Q10;
2. Regulated flow streams if the flow is less than the minimum release flow agreed upon by the regulating agencies;
3. For the natural and unavoidable chemical and physical changes that occur in the hypolimnion of lakes. Streams below impoundments shall meet applicable specific criteria;
4. For mixing zones.

A. The mixing zone shall be exempted from the chronic criteria requirements of this section for those components of waste that are rendered nontoxic by dilution, dissipation, or rapid chemical transformation. Acute numeric criteria of Tables A1, A2, and B1 and whole effluent acute toxicity requirements of subsection (4)(I) must be met at all times within the mixing zone, except within the zone of initial dilution. The following criteria do not apply to thermal mixing zones. Criteria for thermal mixing zones are listed in paragraph (5)(D)6.

B. The maximum size of mixing zones and zones of initial dilution will be determined as follows (**the size may be refined by the use of mixing zone models, e.g. CORMIX, as appropriate**):

(I) Streams with 7Q10 low flows of less than one-tenth cubic foot per second (0.1 cfs)/;—

- (a) Mixing zone—not allowed; and
- (b) Zone of initial dilution—not allowed;

(II) Streams with 7Q10 low flow of one-tenth to twenty cubic feet per second (0.1–20 cfs)—

(a) Mixing zone—one-quarter (1/4) of the stream width, cross-sectional area, or volume of flow; length one-quarter (1/4) mile. If the discharger can document that rapid and complete mixing of the effluent occurs in the receiving stream, the mixing zone may be up to one-half (1/2) of the stream width, cross-sectional area, or volume of flow; and

(b) Zone of initial dilution—one-tenth (0.1) of the mixing zone width, cross-sectional area, or volume of flow;

(III) Streams with 7Q10 low flow of greater than twenty cubic feet per second (20 cfs)—

(a) Mixing zone—one-quarter (1/4) of stream width, cross-sectional area, or volume of flow; length of one-quarter (1/4) mile. **If the discharger can document that rapid and complete mixing of the effluent occurs in the receiving stream, the mixing zone may be up to one-half (1/2) of the stream width, cross-sectional area, or volume of flow; and**

(b) Zone of initial dilution—one-tenth (0.1) of the mixing zone width, cross-sectional area, or volume of flow and no more than ten (10) times the effluent design flow volume unless the use of diffusers or specific mixing zone studies can justify more dilution; and

(IV) Lakes./;—

(a) Mixing zone—not to exceed one-quarter (1/4) of the lake width at the discharge point or one hundred feet (100') from the discharge point, whichever is less./; **and**

(b) Zone of initial dilution—not allowed.

C. A mixing zone shall not overlap another mixing zone in a manner that the maintenance of aquatic life in the body of water in the overlapping area would be further adversely affected.

D. Other factors that may prohibit or further limit the size and location of mixing zones are the size of the river, the volume of discharge, the stream bank configuration, the mixing velocities, other hydrologic or physiographic characteristics, and the designated uses of the water, including type of aquatic life supported, potential effects on mouths of tributary streams, and proximity to water supply intakes.

E. Zones of passage must be provided wherever mixing zones are allowed.

F. Mixing zone and zone of initial dilution size limits will normally be based on streams at the 7Q10 low flow. However, this percent of stream size limits also applies at higher stream flows and discharge limitations may be based on higher stream flows if discharge volume or quality may be adjusted to correlate with stream flow; and

5. For wetlands. Water quality needs will vary depending on the individual characteristics of the wetland. Application of numeric criteria will depend on the specific aquatic life, wildlife, and vegetation requirements.

A. Specific criteria for wetlands shall be developed using scientific procedures including, but not limited to, those procedures described in the U.S. Environmental Protection Agency's *Water Quality Standards Handbook*, Second Edition, August 1994 as published by the Office of Science and Technology, Office of Water, U.S. Environmental Protection Agency, Washington, DC 20460, which are hereby incorporated by reference and do not include any later amendments or additions. The department shall maintain a copy of the referenced documents and shall make them available to the public for inspection and copying at no more than the actual cost of reproduction.

B. Specific criteria shall protect all life stages of species associated with wetlands and prevent acute and chronic toxicity in all parts of the wetland.

C. Specific criteria shall include both chronic and acute concentrations to better reflect the different tolerances to the inherent variability between concentrations and toxicological characteristics of a condition.

D. Specific criteria shall be clearly identified as maximum "not to be exceeded" or average values, and if an average, the averaging period and the minimum number of samples. The conditions, if any, when the criteria apply shall be clearly stated (e.g., specific levels of hardness, pH, or water temperature). Specific sampling requirements (e.g., location, frequency), if any, shall also be identified.

E. The data, testing procedures, and application (safety) factors used to develop specific criteria shall reflect the nature of the condition (e.g., persistency, bioaccumulation potential) and the most sensitive species associated with the wetland.

F. Each specific criterion shall be promulgated in rule 10 CSR 20-7.031. The public notice shall include a description of the affected wetland and the reasons for applying the proposed criterion. A public hearing may be held in the geographical vicinity of the affected wetland. Any specific criterion promulgated under these provisions is subject to U.S. Environmental Protection Agency approval prior to becoming effective.

(B) Toxic Substances.

1. Water contaminants shall not cause the criteria in Tables A1, A2, B1, B2, and B3 to be exceeded. Concentrations of these substances in bottom sediments or waters shall not harm benthic organisms and shall not accumulate through the food chain in harmful concentrations, nor shall state and federal maximum fish tissue levels for fish consumption be exceeded. More stringent criteria may be imposed if there is evidence of additive or synergistic effects.

2. For compliance with this rule, metals shall be analyzed by the following methods:

A. Aquatic life protection and human/ health protection/—*fish consumption./*—

(I) Mercury—total recoverable metals./; **and**

(II) All other metals—dissolved metals;

B. Drinking water supply—total recoverable metals; and

C. All other beneficial uses—total recoverable metals.

3. Other potentially toxic substances for which sufficient toxicity data are not available may not be released to waters of the state until safe levels are demonstrated through adequate bioassay studies.

4. Drinking water criteria, for substances which are rendered nontoxic by transformation processes in the surface water body, shall apply at water supply withdrawal points.

5. Site-specific alternative criteria for human health/*fish consumption* protection may be allowed. Designation of these site-specific criteria must follow procedures set forth in U.S. Environmental Protection Agency's *Methodology for Deriving Ambient Water Quality Criteria for the Protection of Human Health, October 2000* (EPA-822-B-00-004), as published by the Office of Science and Technology, Office of Water, U.S. Environmental Protection Agency, Washington, DC 20460, which is hereby incorporated by reference and does not include any later amendments or additions. The department shall maintain a copy of the referenced document and shall make it available to the public for inspection and copying at no more than the actual cost of reproduction.

6. Metals criteria for which toxicity is hardness dependent are in equation format in Table A2.

7. Total ammonia nitrogen. For any given sample, the total ammonia nitrogen criteria shall be based on the pH and temperature of the water body measured at the time of each sample at the point of compliance.

A. The acute criteria shall not be exceeded at any time except in those waters for which the department has allowed a zone of initial dilution (ZID). The one- (1-) day  $Q_{10}$  low flow condition will be used in determining acute total ammonia nitrogen criteria.

B. The chronic criteria shall not be exceeded except in water segments for which the department has allowed a mixing zone (MZ). The chronic criteria shall be based on a thirty- (30-) day exposure period. Therefore, the thirty- (30-) day  $Q_{10}$  low flow condition of the receiving water body will be used in determining chronic total ammonia nitrogen criteria.

C. Without sufficient and reliable data, it is assumed that early life stages are present and must be protected at all times of the year.

(I) Sufficient and reliable data shall include, but are not limited to, seasonal studies on the fish species distributions, spawning periods, nursery periods, duration of sensitive life stages, and water body temperature. Best professional judgment from fisher/fes/fy biologists and other scientists will be considered as appropriate.

(II) The time frames during the year when early life stages are considered to be absent are those time periods when early life stages are present in numbers that, if chronic toxicity did occur, would not affect the long-term success of the populations.

(III) A source of information for determining the duration of early life stages is *The American Society for Testing and Materials (ASTM) Standard E-1241*, "Standard Guide for Conducting Early Life-Stage Toxicity Tests with Fishes."

(IV) Protection of early life stages should include the most sensitive species that have used a water body for spawning and rearing since November 28, 1975.

(C) Bacteria. The protection of whole body contact recreation is limited to waters designated for that use. The recreational season is from April 1 to October 31. The *E. coli* count shall not exceed the criterion listed in Table A1 as a geometric mean during the recreational season in waters designated for whole body contact recreation. The *E. coli* count shall not exceed one hundred twenty-six (126) per one hundred milliliters (100 mL) at any time in losing streams. For waters designated for secondary contact recreation, the *E. coli* count shall not exceed one thousand one hundred thirty-four (1,134) per one hundred milliliters (100 mL) as a geometric mean during the recreational season.

(D) Temperature.

1. For warm water habitats beyond the mixing zone, water contaminant sources and physical alteration of the water course shall not raise or lower the temperature of a stream more than five degrees Fahrenheit (5 °F) or two and seven-ninths degrees Celsius (2 7/9 °C). Water contaminant sources shall not cause or contribute to stream temperature in excess of ninety degrees Fahrenheit (90 °F) or thirty-two and two-ninths degrees Celsius (32 2/9 °C). However, site-specific ambient temperature data and requirements of sensitive resident aquatic species will be considered, when data are available, to estab-

lish alternative maxima or deviations from ambient temperatures.

2. For cool water habitats beyond the mixing zone, water contaminant sources and physical alteration of the water course shall not raise or lower the temperature of a stream more than five degrees Fahrenheit (5 °F) or two and seven-ninths degrees Celsius (2 7/9 °C). Water contaminant sources shall not cause or contribute to stream temperature in excess of eighty-four degrees Fahrenheit (84 °F) or twenty-eight and eight-ninths degrees Celsius (28 8/9 °C).

3. For cold water habitats beyond the mixing zone, water contaminant sources and physical alteration of the water course shall not raise or lower the temperature of the water body more than two degrees Fahrenheit (2 °F) or one and one-ninth degrees Celsius (1 1/9 °C). Water contaminant sources shall not cause or contribute to temperatures above sixty-eight degrees Fahrenheit (68 °F) or twenty degrees Celsius (20 °C).

4. Water contaminant sources shall not cause any measurable rise in the temperature of lakes. An increase is allowable for Lake Springfield, Thomas Hill Reservoir, and Montrose Lake; however, discharges from these lakes must comply with temperature limits for streams.

5. For the Mississippi River Zones 1A and 2, the water temperature outside the mixing zone shall not exceed the maximum limits indicated in the following list during more than one percent (1%) of the time in any calendar year. In Zone 1B, limits may not be exceeded more than five percent (5%) of the time in a calendar year. At no time shall the river water temperature outside of the thermal mixing zone exceed the listed limits by more than three degrees Fahrenheit (3 °F) or one and six-ninths degrees Celsius (1 6/9 °C).

	A and B		C	
	(°F)	(°C)	(°F)	(°C)
January	45	7 2/9	50	10
February	45	7 2/9	50	10
March	57	13 8/9	60	15 5/9
April	68	20	70	21 1/9
May	78	25 5/9	80	26 6/9
June	86	30	87	30 5/9
July	88	31 1/9	89	31 6/9
August	88	31 1/9	89	31 6/9
September	86	30	87	30 5/9
October	75	23 8/9	78	25 5/9
November	65	18 3/9	70	21 1/9
December	52	11 1/9	57	13 8/9

A = Zone 1A—Des Moines River to Lock and Dam No. 25.

B = Zone 1B—Lock and Dam No. 25 to Lock and Dam No. 26.

C = Zone 2—Lock and Dam No. 26 to the Missouri-Arkansas state line.

6. Thermal mixing zones shall be limited to twenty-five percent (25%) of the cross-sectional area or volume of a river, unless biological surveys performed in response to section 316(a) of the federal Clean Water Act (or equivalent) indicate no significant adverse impact on aquatic life. Thermal plume lengths and widths within rivers, and all plume dimensions within lakes, shall be determined on a case-by-case basis and shall be based on physical and biological surveys when appropriate.

(E) pH. Water contaminants shall not cause [pH] the four- (4-) day average pH concentration of representative samples to be outside of the range of 6.5 to 9.0 standard pH units (chronic toxicity).

(J) Dissolved Oxygen. Water contaminants shall not cause the dissolved oxygen to be lower than the levels described in Table A1 [or Table K—Site-Specific Criteria].

(L) Sulfate and Chloride Limit for Protection of Aquatic Life. [Water contaminants shall not cause sulfate or chloride criteria to exceed the levels described in Table A.]

1. Streams with 7Q10 low flow of less than one cubic foot per second (1 cfs). The concentration of chloride plus sulfate shall not

exceed one thousand milligrams per liter (1,000 mg/L). Table A1 includes additional chloride criteria.

2. Streams with 7Q10 low flow of more than one cubic foot per second (1 cfs) and Class P1, L1, L2, and L3 waters. The total chloride plus sulfate concentration shall not exceed the estimated natural background concentration by more than twenty percent (20%) at the 60Q10 low flow.

(M) Carcinogenic Substances. Carcinogenic substances shall not exceed concentrations in water which correspond to the  $10^{-6}$  cancer risk rate. This risk rate equates to one (1) additional cancer case in a population of one (1) million with lifetime exposure. Derivation of this concentration assumes average water and fish consumption amounts. Assumptions are two and four-tenths (2.4) liters of water and [six and one-half (6.5)] twenty-two (22.0) grams of fish consumed per day. Federally established final maximum contaminant levels for drinking water supply shall supersede drinking water supply criteria developed in this manner.

(N) Nutrients and Chlorophyll.

1. Definitions.

A. For the purposes of [this rule—] these criteria,

(I) A/all lakes and reservoirs shall be referred to as “lakes.”; and

(II) Only total phosphorus (TP) criteria are derived from lake characteristics. Total nitrogen (TN) and chlorophyll (Chl) criteria are determined as a function of TP criteria.]

B. Lake ecoregions—Due to differences in watershed topography, soils, and geology, nutrient criteria for lakes and reservoirs will be determined by the use of four (4) major ecoregions based upon dominant watershed ecoregion. These regions were delineated by grouping the ecological subsections described in Nigh and Schroeder, 2002, *Atlas of Missouri Ecoregions*, [Missouri Department of Conservation] as follows:

(I) Plains: OP1 – Scarped Osage Plains; OP2 – Cherokee Plains; TP2—Deep Loess Hills; TP3—Loess Hills; TP4— Grand River Hills; TP5—Chariton River Hills; TP6—Claypan Till Plains; TP7—Wyaconda River Dissected Till Plains; TP8— Mississippi River Hills;

(II) Ozark Border: MB2a—Crowley’s Ridge Loess Woodland/Forest Hills; OZ11—Prairie Ozark Border; OZ12— Outer Ozark Border; OZ13—Inner Ozark Border;

(III) Ozark Highland: OZ1—Springfield Plain; OZ2—Springfield Plateau; OZ3—Elk River Hills; OZ4—White River Hills; OZ5—Central Plateau; OZ6—Osage River Hills; OZ7—Gasconade River Hills; OZ8—Meramec River Hills; OZ9—Current River Hills; OZ10—St. Francois Knobs and Basins; OZ14—Black River Ozark Border; and

(IV) Big River Floodplain: MB1—Black River Alluvial Plain; MB2b—Crowley’s Ridge Footslopes and Alluvial Plains; MB3—St. Francis River Alluvial Plain; MB4, OZ16, TP9—Mississippi River Alluvial Plain; OZ15, TP1—Missouri River Alluvial Plain.

C. Nutrient Criteria [values.]—The following nutrient criteria represent the desired condition for a water body necessary to protect the designated uses assigned in rule:

(I) Prediction value—A TP concentration that is derived from the characteristics of a lake including dam height in feet, hydraulic residence time in years, and percentage of the watershed that was historically covered by prairie grasses. Prediction values for total phosphorus are calculated directly from these characteristics.

(II) Reference value—A TP concentration that is representative of lakes within an ecoregion having the following characteristics:

(a) Less than twenty percent (20%) of the watershed is in crop land and urban land combined;

(b) There are no point source wastewater discharges and no concentrated animal feeding operations within the watershed;

(c) In the Plains region, more than fifty percent (50%) of the watershed is in grass land; and

(d) In the Ozark Highlands region, more than fifty percent (50%) of the watershed is in woodland.

(III) Site-specific value—A TP concentration for a lake that has been identified as having trophic characteristics for which the reference of the ecoregion and the prediction values for that water body are not adequate to prevent deterioration of water quality. Site-specific criteria are applicable to lakes having a geometric mean TP concentration equal to or less than the 10th percentile value of the range of geometric mean TP concentrations measured in reference lakes within a lake ecoregion. Site-specific criteria are also applicable to lakes with actual TP geometric mean concentrations that are at or below the reference value where the prediction value is at or below the 10th percentile for TP geometric mean concentrations within a lake ecoregion. The 10th percentile values for each ecoregion are listed in Table L and lakes with site-specific criteria are listed in Tables M and N.]

(I) Lake Ecoregion Criteria—Maximum Ambient Concentration of Chlorophyll-a (Chl-a) that is based on an annual geometric mean of samples collected May through September with an allowable exceedance frequency of one in three (1-in-3) years for lakes within a lake ecoregion that have not been assigned site-specific criteria; and

(II) Lake Site-Specific Criteria—Maximum Ambient Concentrations of total phosphorus (TP), total nitrogen (TN), or Chl-a that are based on the geometric mean of a minimum of three (3) years of data and the unique characteristics of the water body.

D. Nutrient Screening Values—Maximum Ambient Concentrations of TP, TN, and Chl-a that are based on the geometric mean of one (1) year of nutrient data collected May through September. Nutrient screening values represent nutrient concentrations that, over time, set the potential to threaten the designated uses assigned in rule. In the absence of site-specific targets, nutrient screening values will be used as targets for Total Maximum Daily Load (TMDL) development.

[D.]E. Tributary arm—A substantial segment of a[n] Class L2 lake that is primarily recharged by a source or sources other than the main channel of the lake.

2. This rule applies to all lakes [and reservoirs] that are waters of the state and [that are outside the Big River Floodplain ecoregion and] have an area of at least ten (10) acres during normal pool condition. Big River Floodplain lakes shall not be subject to these criteria.

3. [Nutrient criteria for lakes and reservoirs with site-specific criteria are listed in Tables M and N. Nutrient criteria for other lakes are as follows:] Lake Ecoregion Criteria and Screening Values for TP, TN, and Chl-a are listed in Table L. Lake Site-Specific Criteria for TP, TN, and Chl-a are listed in Table M. Additional lake site-specific criteria may be developed in accordance with subsection (5)(S) to account for the unique characteristics of the water body that affect trophic status, such as lake morphology, hydraulic residence time, temperature, internal nutrient cycling, or watershed contribution from multiple ecoregions.

[A. Total phosphorus (TP)—

(I) For lakes in which the TP prediction value or the actual TP concentration does not exceed the reference value listed in Table L, the TP criterion shall be the reference value, except as described below;

(II) For lakes in which the TP prediction value does not exceed the reference value, and the actual TP value does not exceed the prediction value, the TP criterion shall be the prediction value;

(III) For lakes in which the TP prediction value and



the actual TP concentration exceed the reference value listed in Table L, the TP criterion shall be limited to the prediction value; and

(IV) Site-specific TP criteria for the tributary arms of L2 lakes are listed in Table N;

B. Total nitrogen (TN)—

(I) For lakes in which the TP prediction value does not exceed the reference value listed in Table L, TN concentration shall be limited to twenty (20) times the TP reference value;

(II) For lakes in which the TP prediction value does not exceed the reference value, and the actual TP value does not exceed the prediction value, TN concentration shall be limited to twenty (20) times the TP prediction value;

(III) For lakes in which the TP prediction value exceeds the TP reference value listed in Table L, TN concentration shall be limited to twenty (20) times the TP prediction value; and

(IV) This portion of the rule does not apply to lakes that are held to site-specific criteria for TP, TN, and Chl, as listed in Tables M and N; and

C. Chlorophyll (Chl)—Chl criteria shall be calculated from TP criteria as follows:

(I) Plains:  $Chl:TP = 0.44$ ;

(II) Ozark Border and Ozark Highlands:  $Chl:TP = 0.42$ ; and

(III) This portion of the rule does not apply to lakes that are held to site-specific criteria for TP, TN, and Chl, as listed in Tables M and N.]

4. All TP, TN, and [chlorophyll] Chl-a concentrations must be calculated as the geometric mean of a minimum of four (4) representative samples per year for [four (4) years that are not necessarily consecutive] one (1) year for purposes of comparison to criteria and screening values. All samples must be collected from the lake surface, near the outflow end of the lake, and during the period May 1–[August 31/September 30].

5. Lakes with water quality that exceed Nutrient Criteria identified in Tables L and M are to be deemed impaired for excess nutrients.

6. Lakes with water quality that exceed screening values for Chl-a, TN, or TP are to be deemed impaired for excess nutrients if any of the following eutrophication impacts are documented for the respective designated uses within the same year. Eutrophication impacts for aquatic life uses include:

A. Occurrence of eutrophication-related mortality or morbidity events for fish and other aquatic organisms;

B. Epilimnetic excursions from dissolved oxygen or pH criteria;

C. Cyanobacteria counts in excess of one hundred thousand (100,000) cells per milliliter (cells/mL);

D. Observed shifts in aquatic diversity attributed to eutrophication; and

E. Excessive levels of mineral turbidity that consistently limit algal productivity during the period May 1 – September 30.

(S) Site-Specific Criteria Development for the Protection and Propagation of Fish, Shellfish, and Wildlife. When water quality criteria in this regulation are either underprotective or overprotective of water quality due to factors influencing bioavailability, or non-anthropogenic conditions for a given water body segment, a petitioner may request site-specific criteria. The petitioner must provide the department with sufficient documentation to show that the current criteria are not adequate and that the proposed site-specific criteria will protect all existing and/or potential uses of the water body.

1. Site-specific criteria may be appropriate where, but is not limited to the examples given in subparagraphs A. or B. of this paragraph.

A. The resident aquatic species of the selected water body have a different degree of sensitivity to a specific pollutant as com-

pared to those species in the data set used to calculate the national or state criteria as described in either of the following parts:

(I) Natural adaptive processes have enabled a viable, balanced aquatic community to exist in waters where natural (non-anthropogenic) background conditions exceed the criterion (e.g., resident species have evolved a genetically-based greater tolerance to high concentrations of a chemical); or

(II) The composition of aquatic species in a water body is different from those used in deriving a criterion (e.g., most of the species considered among the most sensitive, such as salmonids or the cladoceran, *Ceriodaphnia dubia*, which were used in developing a criterion, are absent from a water body).

B. The physical and/or chemical characteristics of the water body alter the biological availability and/or toxicity of the pollutant (e.g., pH, alkalinity, salinity, water temperature, hardness). Such an example is the Water Effect Ratio (WER) defined at (1)(AA) of this rule.

2. All petitioners seeking to develop site-specific criteria shall coordinate with the department early in the process. This coordination will ensure the use of adequate, relevant, and quality data; proper analysis and testing; and defensible procedures.

A. The department will provide guidance for establishing site-specific water quality criteria using scientific procedures including, but not limited to, those procedures described in:

(I) U.S. Environmental Protection Agency's *Water Quality Standards Handbook*, Second Edition, August 1994;

(II) U.S. Environmental Protection Agency's *Interim Guidance on Determination and Use of Water-Effect Ratios for Metals* (EPA-823-B-94-001) and subsequent 1997 modifications;

(III) U.S. Environmental Protection Agency's *Streamlined Water-Effect Ratio Procedure for Discharges of Copper* (EPA-822-R-01-005); and

(IV) U.S. Environmental Protection Agency's *Aquatic Life Ambient Freshwater Quality Criteria – Copper 2007 Revision* (EPA-822-R-07-001).

B. Site-specific criteria development for the Protection and Propagation of Fish, Shellfish, and Wildlife shall be performed using the guidance documents listed in parts (5)(S)2.A.(I)–(IV) as published by the Office of Science and Technology, Office of Water, U.S. Environmental Protection Agency, Washington, DC 20460, which are hereby incorporated by reference and do not include any later amendments or additions. The department shall maintain a copy of the referenced documents and shall make them available to the public for inspection and copying at no more than the actual cost of reproduction.

3. Site-specific criteria shall protect all life stages of resident species and prevent acute and chronic toxicity in all parts of a water body [unless early life stages are determined absent].

4. Site-specific criteria shall include both chronic and acute concentrations to better reflect the different tolerances of resident species to the inherent variability between concentrations and toxicological characteristics of a chemical.

5. Site-specific criteria shall be clearly identified as maximum “not to be exceeded” or average values, and if an average, the averaging period and the minimum number of samples. The conditions, if any, when the criteria apply shall be clearly stated (e.g., specific levels of hardness, pH, or water temperature). Specific sampling requirements (e.g., location, frequency), if any, shall also be identified.

6. The data, testing procedures, and application (safety) factors used to develop site-specific criteria shall reflect the nature of the chemical (e.g., persistency, bioaccumulation potential, and avoidance or attraction responses in fish) and the most sensitive resident species of a water body.

7. The size of a site may be limited to a single water segment, single water subsegment, or may cover a whole watershed depending on the particular situation for which the specific criterion is developed. A group of water bodies may be considered one (1) site if their

respective aquatic communities are similar in composition and have comparable water quality.

8. The department shall determine if a site-specific criterion is adequate and justifiable. *[Each site-specific criterion shall be promulgated into rule 10 CSR 20-7.031.]* The public notice shall include a description of the affected water body or water body segment and the reasons for applying the proposed criterion. If the department determines that there is significant public interest, a public hearing may be held in the geographical vicinity of the affected water body or water body segment. Any site-specific criterion promulgated under these provisions is subject to U.S. Environmental Protection Agency approval prior to becoming effective for Clean Water Act purposes.

(6) Groundwater.

(A) Water contaminants shall not cause or contribute to exceedance of Table A1, groundwater limits in aquifers and caves. Table A1 values listed as health advisory levels shall be used in establishing management strategies and groundwater cleanup criteria, until additional data becomes available to support alternative criteria or other standards are established. Substances not listed in Table A1 shall be limited so that drinking water, livestock watering, and irrigation uses are protected.

(B) When criteria for the protection of aquatic life or human health protection~~[-fish consumption]~~ in Table A1 are more stringent than groundwater criteria, appropriate criteria for the protection of aquatic life or human health *[protection-fish consumption]* shall apply to waters in caves and to aquifers which contribute an important part of base flow of surface waters designated for aquatic life protection. Other substances not listed in Table A1 shall be limited in these aquifers and caves so that the aquatic life use is protected.

(12) Water Quality Standards Variances.

*[(A)]* A permittee or an applicant for a National Pollutant Discharge Elimination System (NPDES) or Missouri state operating permit~~,~~ may pursue a temporary variance *[to a water quality standard]* pursuant to either section 644.061 or section 644.062, RSMo. *[In order to obtain U.S. Environmental Protection Agency approval for a water quality standards variance for purposes of the federal Clean Water Act, the following additional provisions apply:]* **A variance from water quality standards shall comply with 40 CFR 131.14.**

*[1. A variance applies only to the applicant identified in such variance and only to the water quality standard specified in the variance. A variance does not modify an underlying water quality standard.*

*2. A variance shall not be granted if water quality standards will be attained by implementing technology-based effluent limits required under 10 CSR 20-7.015 of this rule and by implementing cost-effective and reasonable best management practices for non-point source control.*

*3. A variance shall not be granted for actions that will violate general criteria conditions prescribed by 10 CSR 20-7.031(4).*

*4. A variance shall not be granted that would likely jeopardize the continued existence of any endangered or threatened species or result in the destruction or adverse modification of such species' critical habitat.*

*5. A variance may be granted if the applicant demonstrates that achieving the water quality standard is not feasible as supported by an analysis based on the factors provided in 40 CFR 131.10(g), or other appropriate factors.*

*6. In granting a variance, conditions and time limitations shall be set by the department with the intent that progress be made toward attaining water quality standards.]*

*[7.](A)* Each variance shall be granted only after public notification and opportunity for public comment. Once any variance to water quality standards is granted, the department shall submit the vari-

ance, with an Attorney General Certification that the Clean Water Commission adopted the variance in accordance with state law, to the U.S. Environmental Protection Agency for approval.

**(B) Individual variances may be granted using the terms, conditions, and procedures found in the "Missouri Multiple Discharger Variance Framework from the Water Quality Standards of Total Ammonia Nitrogen, CWC-MDV-1-17," finalized by the department on September 15, 2017, which is incorporated by reference and does not include any later amendments or additions. The department shall maintain a copy of the referenced documents and shall make them available to the public for inspection and copying at no more than the actual cost of reproduction.**

**(C) Variance terms and conditions, including facility name, permit number, receiving stream name, first classified water body ID, discharge location, highest attainable condition, effective permit date, and the variance expiration date, will be incorporated into the Missouri Use Designation Dataset.**

**Table A1-Criteria for Designated Uses and Health Advisory Levels**

<b>Criteria for Designated Uses</b>								
		Aquatic Life Protection		Human Health Protection		DWS	IRR/ LWP	GRW
<b>POLLUTANT</b>	CAS #	Acute	Chronic	Organism + Water	Organism Only			
<b>METALS (µg/L)</b>								
Aluminum (pH 6.5-9.0)	7429905	750						
Antimony	7440360			5.6	640	6		6
Arsenic	7440382	340	150	0.018	0.14	50	100	50
Barium	7440393			1,000		2,000		2,000
Beryllium	7440417					4	100	4
Boron	7440428						2,000	2,000
Cadmium	7440439	Table A2	Table A2			5		5
Chromium (III)	16065831	Table A2	Table A2			100	100	100
Chromium (VI)	18540299	16	11					
Cobalt	7440484						1,000	1,000
Copper	7440508	Table A2	Table A2	1,300		1,300	500	1,300
Iron	7439896		1,000					300
Lead	7439921	Table A2	Table A2			15		15
Manganese	7439965							50
Mercury	7439976	1.4	0.77			2		2
Methylmercury	22967926	1.4	0.77		0.3 mg/kg			
Nickel	7440020	Table A2	Table A2	610	4,600	100		100
Selenium	7782492		5	170	4,200	50		50
Silver	7440224	Table A2				50		50
Thallium	7440280			0.24	0.47	2		2

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WBC-Whole Body Contact Recreation  
SCR-Secondary Contact Recreation  
GRW-Groundwater

POLLUTANT	CAS #	Aquatic Life Protection		Human Health Protection		DWS	IRR/ LWP	GRW
		Acute	Chronic	Organism + Water	Organism Only			
Zinc	7440666	Table A2	Table A2	7,400	26,000	5,000		5,000
<b>OTHER INORGANIC SUBSTANCES (µg/L)</b>								
Alkalinity (minimum CaCO <sub>3</sub> )			20,000					
Ammonia	7664417	Table B1	Tables B2 & B3					
Asbestos	1332214			7 million fibers/L		7 million fibers/L		
Chloride	16887006	860,000	230,000			250,000		
Chlorine, Total Residual (Coldwater Aquatic Habitat)	7782505		2					
Chlorine, Total Residual (Warmwater Aquatic Habitat)	7782505	19	11					
Cyanide	57125	22	5.2	4	400			
<i>E. coli</i> Bacteria (cfu/100 mL)		WBC-A: 126 WBC-B: 206 SCR: 1,134						
Fluoride						4,000	4,000	4,000
Gases, Total Dissolved (percent saturation)		110%	110%					
Hydrogen Sulfide	7783064		2					
Nitrates	14797558			10,000		10,000		10,000
Oil and Grease			10,000					
Oxygen, Dissolved (Coldwater Aquatic Habitat)	7782447	6,000	6,000					
Oxygen, Dissolved (Coolwater Aquatic Habitat)	7782447	5,000	5,000					
Oxygen, Dissolved (Warmwater Aquatic Habitat)	7782447	5,000	5,000					
pH			6.5 - 9	5 - 9				
Solids Suspended and Turbidity			Narrative Statement					
Sulfate		10 CSR 20- 7.031(5)(L)			250,000			
Temperature		10 CSR 20- 7.031(5)(D)						

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POLLUTANT	CAS #	Aquatic Life Protection		Human Health Protection		DWS	IRR/ LWP	GRW
		Acute	Chronic	Organism + Water	Organism Only			
<b>ORGANIC SUBSTANCES (µg/L)</b>								
<b>Benzenes</b>								
Benzene	71432			2.1	58	5		5
Chlorobenzene	108907			100	800	100		100
1,2-Dichlorobenzene (ortho-dichlorobenzene)	95501			1,000	3,000	600		600
1,3-Dichlorobenzene (meta-dichlorobenze)	541731			7	10	600		600
1,4-Dichlorobenzene (para-dichlorobenzene)	106467			300	900	75		75
1,2,4-Trichlorobenzene	120821			0.071	0.076	70		70
1,2,4,5-Tetrachlorobenzene	95943			0.03	0.03	2.3		2.3
Pentachlorobenzene	608935			0.1	0.1	3.5		3.5
Hexachlorobenzene	118741			0.000079	0.000079	1		1
Ethylbenzene	100414			68	130	700		700
Nitrobenzene	98953			10	600	17		17
Styrene (Vinyl Benzene)	100425					100		100
<b>Chlorinated Hydrocarbons</b>								
Carbon Tetrachloride (Tetrachloromethane)	56235			0.4	5	5		5
1,2-Dichloroethane	107062			9.9	650	5		5
1,1,1-Trichloroethane	71556			10,000	200,000	200		200
1,1,2-Trichloroethane	79005			0.55	8.9	5		5
1,1,2,2-Tetrachloroethane	79345			0.2	3	0.17		0.17
Hexachloroethane	67721			0.1	0.1	1.9		1.9
1,1-Dichloroethylene	75354			300	20,000	7		7

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		Acute	Chronic	Organism + Water	Organism Only			
cis-1,2-Dichloroethylene	156592					70		70
trans-1,2-Dichloroethylene	156605			100	4,000	100		100
Trichloroethylene	79016			0.6	7	5		5
Tetrachloroethylene	127184			10	29	0.8		0.8
1,2-Dichloropropane	78875			0.9	31	0.52		0.52
1,3-Dichloropropene (Dichloropropene)	542756			0.27	12	87		87
<b>Other Halogenated Hydrocarbons</b>								
Ethylene Dibromide (1,2-Dibromoethane)	106934					0.05		0.05
Methyl Bromide (Bromomethane)	74839			100	10,000	48		48
Methyl Chloride (Chloromethane)	74873					5		5
Methylene Chloride (Dichloromethane)	75092			20	1,000	4.7		4.7
Total Trihalomethanes (TTHMs)						80		80
Chlorodibromomethane	124481			0.8	21	0.41		0.41
Dichlorobromomethane	75274			0.95	27	0.56		0.56
Tribromomethane (Bromoform)	75252			7	120	4.3		4.3
Trichloromethane (Chloroform)	67663			60	2,000	5.7		5.7
Vinyl Chloride	75014			0.022	1.6	2		2
<b>Ethers</b>								
Bis(2-Chloroethyl) Ether	111444			0.03	2.2	0.03		0.03
Bis(2-Chloro-1-Methylethyl) Ether	108601			200	4,000	1,400		1,400
Bis(Chloromethyl) Ether	542881			0.00015	0.017	0.00013		0.00013
<b>Miscellaneous Organics</b>								

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POLLUTANT	CAS #	Aquatic Life Protection		Human Health Protection		DWS	IRR/ LWP	GRW
		Acute	Chronic	Organism + Water	Organism Only			
2,3,7,8-Tetrachlorodibenzo-p-dioxin 2,3,7,8-TCDD (Dioxin)	1746016			5.00E-09	5.1E-09	1.3E-08		1.3E-08
Di(2-ethylhexyl) adipate	103231					400		400
Isophorone	78591			34	1,800	36		36
Polychlorinated Biphenyls (PCBs)			0.014	0.000064	0.000064			0.00045
Tributyltin (TBT)		0.46	0.072					
<b>Nitrogen Containing Compounds</b>								
Nitrosamines				0.0008	1.24			
N-Nitrosodibutylamine	924163			0.0063	0.22			
N-Nitrosodiethylamine	55185			0.0008	1.24			
N-Nitrosodimethylamine	62759			0.00069	3.0	0.0007		0.0007
N-Nitrosodiphenylamine	86306			3.3	6.0	5		5
N-Nitrosodi-n-propylamine	621647			0.005	0.51			
N-Nitrosopyrrolidine	930552			0.016	34			
Acrylonitrile (2-propenenitrile)	107131			0.061	7.0	0.058		0.058
Benzidine (4,4'-diaminobiphenyl)	92875			0.00014	0.011	0.00012		0.00012
3,3'-Dichlorobenzidine	91941			0.049	0.15	0.04		0.04
1,2-Diphenylhydrazine	122667			0.03	0.2	0.04		0.04
<b>Polynuclear Aromatic Hydrocarbons (PAHs)</b>								
Acenaphthene	83329			70	90	1,200		1,200
Anthracene	120127			300	400	9,600		9,600
Benzo-a-Anthracene	56553			0.0012	0.0013	0.0044		0.0044
Benzo-a-Pyrene	50328			0.0012	0.0013	0.2		0.2

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		Acute	Chronic	Organism + Water	Organism Only			
Benzo-b-Fluoroanthene	205992			0.0012	0.0013	0.0044		0.0044
Benzo-k-Fluoroanthene	207089			0.012	0.013	0.0044		0.0044
2-Chloronaphthalene	91587			800	1,000			
Chrysene	218019			0.12	0.13	0.0044		0.0044
Dibenzo-a-h-Anthracene	53703			0.00012	0.00013	0.0044		0.0044
Fluoranthene	206440			20	20	300		300
Fluorene	86737			50	70	1,300		1,300
Indeno (1,2,3-cd) Pyrene	193395			0.0012	0.0013	0.0044		0.0044
Pyrene	129000			20	30	960		960
<b>Phthalate Esters</b>								
Bis(2-Ethylhexyl) Phthalate	117817			0.32	0.37	6		6
Butylbenzyl Phthalate	85687			0.1	0.1	3,000		3,000
Diethyl Phthalate	84662			600	600	23,000		23,000
Dimethyl Phthalate	131113			2,000	2,000	313,000		313,000
Di-n-Butyl Phthalate	84742			20	30	2,700		2,700
<b>Phenolic Compounds</b>								
2-Chlorophenol	95578			30	800	0.1		0.1
2,4-Dichlorophenol	120832			10	60	93		93
2,4-Dimethylphenol	105679			100	3,000	540		540
2-Methyl-4,6-Dinitrophenol	534521			2	30	13		13
2,4-Dinitrophenol	51285			10	300	70		70
Dinitrophenols	25550587			10	1,000			

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		Acute	Chronic	Organism + Water	Organism Only			
3-Methyl-4-Chlorophenol	59507			500	2,000			
Nonylphenol	84852153	28	6.6					
Pentachlorophenol	87865	Table A2	Table A2	0.03	0.04	1		1
Phenol (Coldwater Aquatic Habitat)	108952	5,293	157	4,000	300,000	100		300
Phenol (Warmwater Aquatic Habitat)	108952	5,293	2,560	4,000	300,000	100		300
2,4,5-Trichlorophenol	95954			300	600	2,600		2,600
2,4,6-Trichlorophenol	88062			1.5	2.8	2		2
<b>Toluenes</b>								
2,4-Dinitrotoluene	121142			0.049	1.7	0.11		0.04
Toluene	108883			57	520	1,000		1,000
Xylenes (Total)	1330207					10,000		10,000
<b>PESTICIDES (µg/L)</b>								
Acrolein	107028	3	3	3	400	320		320
Alachlor	15972608					2		2
Aldrin	309002	3		7.7E-07	0.00000077	0.00013		0.00013
Atrazine	1912249					3		3
Carbaryl	63252	2.1	2.1					
Carbofuran	1563662					40		40
Chlordane	57749	2.4	0.0043	0.00031	0.00032	2		2
Chlorpyrifos	2921882	0.083	0.041			20		
Chlorophenoxy Herbicide (2,4-D)	94757			1,300	12,000	70		70
Chlorophenoxy Herbicide (2,4,5-TP)	93721			100	400	50		50

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		Acute	Chronic	Organism + Water	Organism Only			
Dalapon	75990					200		200
Demeton	8065483		0.1					
Diazinon	333415	0.17	0.17					
1,2-Dibromo-3-chloropropane (DBCP)	96128					0.2		0.2
4-4'-Dichlorodiphenyldichloro ethylene (DDE)	72559			0.000018	0.000018	0.00059		0.00059
4-4'-Dichlorodiphenyldichloro ethane (DDD)	72548			0.00012	0.00012	0.00083		0.00083
4-4'-Dichlorodiphenyltrichloro ethane (DDT)	50293	1.1	0.001	0.00003	0.00003	0.00059		0.00059
Dieldrin	60571	0.24	0.056	1.2E-06	0.0000012	0.00014		0.00014
Dinoseb	88857					7		7
Diquat	85007					20		20
alpha-Endosulfan (Endosulfan)	959988	0.22	0.056	20	30			
beta-Endosulfan (Endosulfan)	33213659	0.22	0.056	20	40			
Endosulfan Sulfate	1031078			20	40			
Endothall	145733					100		100
Endrin	72208	0.086	0.036	0.03	0.03	2		2
Endrin Aldehyde	7421934			1	1	0.75		0.75
Glyphosate	1071836					700		700
Guthion	86500		0.01					
Heptachlor	76448	0.52	0.0038	5.9E-06	0.0000059	0.4		0.4
Heptachlor Epoxide	1024573	0.52	0.0038	0.000032	0.000032	0.2		0.2
Hexachlorobutadiene	87683			0.01	0.01	0.45		0.45
alpha-Hexachlorocyclohexane (alpha-BHC)	319846			0.00036	0.00039	0.0022		0.0022

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		Acute	Chronic	Organism + Water	Organism Only			
beta-Hexachlorocyclohexane (beta-BHC)	319857			0.008	0.014	0.0022		0.0022
gamma-Hexachlorocyclohexane (gamma-BHC; Lindane)	58899	0.95		4.2	4.4	0.2		0.2
Technical- Hexachlorocyclohexane	608731			0.0066	0.01			
Malathion	121755		0.1					
Methoxychlor	72435		0.03	0.02	0.02	40		40
Mirex	2385855		0.001					
Oxamyl (Vydate)	23135220					200		200
Picloram	1918021					500		500
Parathion	56382	0.065	0.013					
Simazine	122349					4		4
Toxaphene	8001352	0.73	0.0002	0.0007	0.00071	3		3
<b>Health Advisory Levels (µg/L)</b>								
Ametryn	834128					60		60
Baygon	114261					3		3
Bentazon	25057890					20		20
Bis-2-chloroisopropyl ether	108601					300		300
Bromacil	314409					90		90
Bromochloromethane	74975					90		90
Bromomethane	74839					10		10
Butylate	2008415					350		350
Carbaryl	63252					700		700
Carboxin	5234684					700		700

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		Acute	Chronic	Organism + Water	Organism Only			
Chloramben	133904					100		100
o-chlorotoluene	95498					100		100
p-chlorotoluene	106434					100		100
Chlorpyrifos	2921882					20		20
DCPA (dacthal)	1861321					4000		4000
Diazinon	333415					0.6		0.6
Dicamba	1918009					200		200
Diisopropyl methylphosphonate	1445756					600		600
Dimethyl methylphosphonate	756796					100		100
1,3-dinitrobenzene	99650					1		1
Diphenamid	957517					200		200
Diphenylamine	122394					200		200
Disulfoton	298044					0.3		0.3
1,4-dithiane	505293					80		80
Diuron	330541					10		10
Fenamiphos	22224926					2		2
Fluometron	2164172					90		90
Fluorotrichloromethane	75694					2000		2000
Fonofos	944229					10		10
Hexazinone	51235042					200		200
Malathion	121755					200		200
Maleic hydrazide	123331					4000		4000

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GRW-Groundwater

POLLUTANT	CAS #	Aquatic Life Protection		Human Health Protection		DWS	IRR/ LWP	GRW
		Acute	Chronic	Organism + Water	Organism Only			
MCPA (4(chloro-2-methoxyphenoxy) acetic acid)	94746					10		10
Methyl parathion	298000					2		2
Metolachlor	51218452					70		70
Metribuzin	21087649					100		100
Naphthalene	91203					20		20
Nitroguanidine	556887					700		700
para-Nitrophenol	100027					60		60
Paraquat	1910425					30		30
Pronamide	23950585					50		50
Propachlor	1918167					90		90
Propazine	139402					10		10
Propham	122429					100		100
2,4,5-T (Trichlorophenoxy-acetic acid)	93765					70		70
Tebuthiuron	34014181					500		500
Terbacil	5902512					90		90
Terbufos	13071799					0.9		0.9
1,1,1,2-Tetrachloroethane	630206					70		70
1,2,3-Trichloropropane	96184					40		40
Trifluralin	1582098					5		5
Trinitroglycerol	55630					5		5
2,4,6-Trinitrotoluene (Trinitrotoluene)	118967					2		2

DWS-Drinking Water Supply  
IRR-Irrigation  
LWP-Livestock and Wildlife Protection

WBC-Whole Body Contact Recreation  
SCR-Secondary Contact Recreation  
GRW-Groundwater

Table A2. Criteria for Aquatic Life Protection

POLLUTANT	CAS #	
<b>METALS (µg/L) - Hardness Dependent</b>		
Cadmium	7440439	Acute = $e^{(1.0166 \cdot \ln(\text{Hardness}) - 3.062490)} * (1.136672 - (\ln(\text{Hardness}) * 0.041838))$
		Chronic = $e^{(0.7977 * \ln(\text{Hardness}) - 3.909)} * (1.101672 - (\ln(\text{Hardness}) * 0.041838))$
Chromium (III)	16065831	Acute = $e^{(0.8190 \cdot \ln(\text{Hardness}) + 3.725666)} * 0.316$
		Chronic = $e^{(0.8190 \cdot \ln(\text{Hardness}) + 0.6848)} * 0.860$
Copper	7440508	Acute = $e^{(0.9422 \cdot \ln(\text{Hardness}) - 1.700300)} * 0.960$
		Chronic = $e^{(0.8545 \cdot \ln(\text{Hardness}) - 1.702)} * 0.960$
Lead	7439921	Acute = $e^{(1.273 \cdot \ln(\text{Hardness}) - 1.460448)} * (1.46203 - (\ln(\text{Hardness}) * 0.145712))$
		Chronic = $e^{(1.273 \cdot \ln(\text{Hardness}) - 4.704797)} * (1.46203 - (\ln(\text{Hardness}) * 0.145712))$
Nickel	7440020	Acute = $e^{(0.8460 \cdot \ln(\text{Hardness}) + 2.255647)} * 0.998$
		Chronic = $e^{(0.8460 \cdot \ln(\text{Hardness}) + 0.0584)} * 0.997$
Silver	7440224	Acute = $e^{(1.72 \cdot \ln(\text{Hardness}) - 6.588144)} * 0.850$
Zinc	7440666	Acute = $e^{(0.8473 \cdot \ln(\text{Hardness}) + 0.884)} * 0.98$
		Chronic = $e^{(0.8473 \cdot \ln(\text{Hardness}) + 0.884)} * 0.98$
<b>OTHER POLLUTANTS (µg/L) – Equation Dependent</b>		
Pentachlorophenol	87865	Acute = $e^{((1.005 * (\text{pH}) - 4.869))}$
		Chronic = $e^{((1.005 * (\text{pH}) - 5.134))}$

**Table B1. Acute Criteria for Total Ammonia Nitrogen (mg N/L)**

<b>pH</b>	<b>Cold-Water Fisheries (1)</b>	<b>Cool &amp; Warm-Water Fisheries (2)</b>
6.5	32.6	48.8
6.6	31.3	46.8
6.7	29.8	44.6
6.8	28.1	42.0
6.9	26.2	39.1
7.0	24.1	36.1
7.1	22.0	32.8
7.2	19.7	29.5
7.3	17.5	26.2
7.4	15.4	23.0
7.5	13.3	19.9
7.6	11.4	17.0
7.7	9.6	14.4
7.8	8.1	12.1
7.9	6.7	10.1
8.0	5.6	8.4
8.1	4.6	6.9
8.2	3.8	5.7
8.3	3.1	4.7
8.4	2.5	3.8
8.5	2.1	3.2
8.6	1.7	2.6
8.7	1.4	2.2
8.8	1.2	1.8
8.9	1.0	1.5
9.0	0.8	1.3

(1) Salmonids present:  $CMC = [(0.275 / (1+10^{7.204-pH})) + [39.0 / (1+10^{pH-7.204})]$

(2) Salmonids absent:  $CMC = [0.411 / (1+10^{7.204-pH})] + [58.4 / (1+10^{pH-7.204})]$

Table B2. Chronic Criteria for Total Ammonia Nitrogen (mg N/L): Early Life Stage Absent (3)(4)

pH	Temperature (°C)																
	0-7	8	9	10	11	12	13	14	15	16	18	20	22	24	26	28	30
6.5	10.8	10.1	9.5	8.9	8.3	7.8	7.3	6.8	6.4	6.0	5.3	4.6	4.1	3.6	3.1	2.8	2.4
6.6	10.7	9.9	9.3	8.7	8.2	7.7	7.2	6.7	6.3	5.9	5.2	4.6	4.0	3.5	3.1	2.7	2.4
6.7	10.5	9.8	9.2	8.6	8.0	7.5	7.1	6.6	6.2	5.8	5.1	4.5	3.9	3.5	3.0	2.7	2.3
6.8	10.2	9.5	8.9	8.4	7.9	7.4	6.9	6.5	6.1	5.7	5.0	4.4	3.8	3.4	3.0	2.6	2.3
6.9	9.9	9.3	8.7	8.1	7.6	7.2	6.7	6.3	5.9	5.5	4.8	4.3	3.7	3.3	2.9	2.5	2.2
7.0	9.6	9.0	8.4	7.9	7.4	6.9	6.5	6.1	5.7	5.3	4.7	4.1	3.6	3.2	2.8	2.4	2.1
7.1	9.2	8.6	8.0	7.5	7.1	6.6	6.2	5.8	5.4	5.1	4.5	3.9	3.5	3.0	2.7	2.3	2.0
7.2	8.7	8.2	7.6	7.2	6.7	6.3	5.9	5.5	5.2	4.9	4.3	3.7	3.3	2.9	2.5	2.2	1.9
7.3	8.2	7.7	7.2	6.7	6.3	5.9	5.6	5.2	4.9	4.6	4.0	3.5	3.1	2.7	2.4	2.1	1.8
7.4	7.6	7.2	6.7	6.3	5.9	5.5	5.2	4.8	4.5	4.3	3.7	3.3	2.9	2.5	2.2	1.9	1.7
7.5	7.0	6.6	6.2	5.8	5.4	5.1	4.8	4.5	4.2	3.9	3.4	3.0	2.6	2.3	2.0	1.8	1.6
7.6	6.4	6.0	5.6	5.3	5.0	4.6	4.3	4.1	3.8	3.6	3.1	2.7	2.4	2.1	1.9	1.6	1.4
7.7	5.8	5.4	5.1	4.7	4.4	4.2	3.9	3.7	3.4	3.2	2.8	2.5	2.2	1.9	1.7	1.5	1.3
7.8	5.1	4.8	4.5	4.2	4.0	3.7	3.5	3.2	3.0	2.8	2.5	2.2	1.9	1.7	1.5	1.3	1.1
7.9	4.5	4.2	3.9	3.7	3.5	3.2	3.1	2.8	2.7	2.5	2.2	1.9	1.7	1.5	1.3	1.1	1.0
8.0	3.9	3.7	3.4	3.2	3.0	2.8	2.6	2.5	2.3	2.2	1.9	1.7	1.5	1.3	1.1	1.0	0.8
8.1	3.4	3.1	2.9	2.8	2.6	2.4	2.3	2.1	2.0	1.9	1.6	1.4	1.2	1.1	1.0	0.8	0.7
8.2	2.9	2.7	2.5	2.4	2.2	2.1	1.9	1.8	1.7	1.6	1.4	1.2	1.1	0.9	0.8	0.7	0.6
8.3	2.4	2.3	2.1	2.0	1.9	1.7	1.6	1.5	1.4	1.3	1.2	1.0	0.9	0.8	0.7	0.6	0.5
8.4	2.0	1.9	1.8	1.7	1.6	1.5	1.4	1.3	1.2	1.1	1.0	0.9	0.7	0.7	0.6	0.5	0.4
8.5	1.7	1.6	1.5	1.4	1.3	1.2	1.2	1.1	1.0	0.9	0.8	0.7	0.6	0.5	0.5	0.4	0.4
8.6	1.4	1.4	1.3	1.2	1.1	1.0	1.0	0.9	0.8	0.8	0.7	0.6	0.5	0.4	0.4	0.3	0.3
8.7	1.2	1.1	1.1	1.0	0.9	0.9	0.8	0.8	0.7	0.7	0.6	0.5	0.4	0.4	0.3	0.3	0.2
8.8	1.0	1.0	0.9	0.8	0.8	0.7	0.7	0.6	0.6	0.6	0.5	0.4	0.4	0.3	0.3	0.2	0.2
8.9	0.9	0.8	0.8	0.7	0.7	0.6	0.6	0.5	0.5	0.5	0.4	0.3	0.3	0.2	0.2	0.2	0.2
9.0	0.7	0.7	0.6	0.6	0.6	0.5	0.5	0.5	0.4	0.4	0.3	0.3	0.3	0.2	0.2	0.2	0.1

(3) Without sufficient and reliable data, it is assumed that Early Life Stages are present and must be protected at all times of the year.

(4) Early Life Stages absent  $CCC = [0.0577 / (1+10^{7.688-pH})] + [2.487 / (1+10^{pH-7.688})] * 1.45 * 10^{0.028 * (25-MAX(T, 7))}$



Table B3. Chronic Criteria for Total Ammonia Nitrogen (mg N/L): Early Life Stages present (5)

pH	Temperature (°C)									
	0	14	16	18	20	22	24	26	28	30
6.5	6.6	6.6	6.0	5.3	4.6	4.1	3.6	3.1	2.8	2.4
6.6	6.5	6.5	5.9	5.2	4.6	4.0	3.5	3.1	2.7	2.4
6.7	6.4	6.4	5.8	5.1	4.5	3.9	3.5	3.0	2.7	2.3
6.8	6.2	6.2	5.7	5.0	4.4	3.8	3.4	3.0	2.6	2.3
6.9	6.1	6.1	5.5	4.8	4.3	3.7	3.3	2.9	2.5	2.2
7.0	5.9	5.9	5.3	4.7	4.1	3.6	3.2	2.8	2.4	2.1
7.1	5.6	5.6	5.1	4.5	3.9	3.5	3.0	2.7	2.3	2.0
7.2	5.3	5.3	4.9	4.3	3.7	3.3	2.9	2.5	2.2	1.9
7.3	5.0	5.0	4.6	4.0	3.5	3.1	2.7	2.4	2.1	1.8
7.4	4.7	4.7	4.3	3.7	3.3	2.9	2.5	2.2	1.9	1.7
7.5	4.3	4.3	3.9	3.4	3.0	2.6	2.3	2.0	1.8	1.6
7.6	3.9	3.9	3.6	3.1	2.7	2.4	2.1	1.9	1.6	1.4
7.7	3.5	3.5	3.2	2.8	2.5	2.2	1.9	1.7	1.5	1.3
7.8	3.1	3.1	2.8	2.5	2.2	1.9	1.7	1.5	1.3	1.1
7.9	2.8	2.8	2.5	2.2	1.9	1.7	1.5	1.3	1.1	1.0
8.0	2.4	2.4	2.2	1.9	1.7	1.5	1.3	1.1	1.0	0.8
8.1	2.1	2.1	1.9	1.6	1.4	1.2	1.1	1.0	0.8	0.7
8.2	1.7	1.7	1.6	1.4	1.2	1.1	0.9	0.8	0.7	0.6
8.3	1.5	1.5	1.3	1.2	1.0	0.9	0.8	0.7	0.6	0.5
8.4	1.2	1.2	1.1	1.0	0.9	0.7	0.7	0.6	0.5	0.4
8.5	1.0	1.0	0.9	0.8	0.7	0.6	0.5	0.5	0.4	0.4
8.6	0.9	0.9	0.8	0.7	0.6	0.5	0.4	0.4	0.3	0.3
8.7	0.7	0.7	0.7	0.6	0.5	0.4	0.4	0.3	0.3	0.2
8.8	0.6	0.6	0.6	0.5	0.4	0.4	0.3	0.3	0.2	0.2
8.9	0.5	0.5	0.5	0.4	0.3	0.3	0.2	0.2	0.2	0.2
9.0	0.4	0.4	0.4	0.3	0.3	0.3	0.2	0.2	0.2	0.1

(5) Early Life Stages present:  $CCC = [0.0577 / (1+10^{7.688-pH})] + [2.487 / (1+10^{pH-7.688})] * \text{MIN}(2.85, 1.45 * 10^{0.028 * (25-T)})$

**Table C**  
**Waters Designated for Cold-Water Fishery**

<b>Water Body</b>	<b>Miles/Aces</b>	<b>From</b>	<b>To</b>	<b>County(ies)</b>
Barren Fork	2.0	Mouth	20,31N,4W	Shannon
Bee Creek	1.0	Mouth	Hwy. 65	Taney
Bender Creek	0.7	Mouth	10,31N,9W	Texas
Bennett Springs Creek	2.0	Mouth	Bennett Springs	Laclede
Blue Springs Creek	4.0	Mouth	2,39N,3W	Crawford
Bryant Creek	1.0	3,23N,12W	34,24N,12W	Ozark
Bryant Creek	6.0	19,27N,14W	8,27N,15W	Douglas
Buffalo Creek	10.0	State line	5,23N,33W	McDonald
Bull Creek	5.0	Mouth	34,24N,21W	Taney
Bull Shoals Lake	9,000.0	21/34,20N,15W	---	Ozark
Capps Creek	4.0	Mouth	17,25N,28W	Newton-Barry
Cedar Creek	1.0	21,26N,32W	28,26N,32W	Newton
Center Creek	3.0	24,27N,29W	17,27N,28W	Lawrence
Chesapeake Creek	3.0	Mouth	29,28N,25W	Lawrence
Crane Creek	15.0	8,25N,23W	24,26N,25W	Stone-Lawrence
Current River	19.0	24,31N,6W	Montauk Spring	Shannon-Dent
Dogwood Creek	2.3	Mouth	State line	Stone
Dry Creek	4.0	Mouth	14,37N,3W	Crawford
Eleven Point River	33.5	State line	36,25N,4W	Oregon
Flat Creek	3.0	9,23N,27W	21,23N,27W	Barry
Goose Creek	4.0	Mouth	10,28N,25W	Lawrence
Greer Spring Branch	1.0	Mouth	36,25N,4W	Oregon
Hickory Creek	4.5	13,25N,31W	28,25N,31W	Newton
Hobbs Hollow	2.7	Mouth	State line	Stone
Horse Creek	2.2	Mouth	23,35N,8W	Dent
Hunter Creek	5.0	22,26N,15W	20,26N,14W	Douglas
Hurricane Creek	1.5	Mouth	30,24N,12W	Ozark
Hurricane Creek	3.2	Mouth	22,25N,3W	Oregon
Indian Creek	1.4	Mouth	17,21N,23W	Stone
Indian Creek	20.0	Mouth	36,39N,01W	Franklin-
Johnson Creek	3.0	Mouth	36,29N,26W	Lawrence
Joyce Creek	1.0	17,24N,28W	16,24N,28W	Barry
L. Flat Creek	3.5	Mouth	25,25N,27W	Barry
L. Piney Creek	15.0	25,37N,9W	4,35N,8W	Phelps
L. Piney Creek	4.0	04,35N,08W	21,35N,08W	Phelps
L. Sinking Creek	2.2	Mouth	33,32N,4W	Dent
Lake Taneycomo	1,730.0	8,23N,20W	---	Taney
Lyman Creek	1.0	Mouth	30,40N,3W	Crawford
Maramec Spring Branch	1.0	Mouth	1,37N,6W	Phelps
Meramec River	10.0	22,38N,5W	Hwy. 8	Crawford
Mill Creek	1.5	Mouth	11,40N,8W	Maries
Mill Creek	1.5	Mouth	9,36N,18W	Dallas
Mill Creek	5.0	29,37N,9W	Yelton Spring	Phelps
N. Fork White River	23.0	09,22N,12W	34,25N,11W	Ozark
Niangua River	6.0	11,35N,18W	Bennett Sp. Creek	Dallas
Roaring River	7.0	Mouth	34,22N,27W	Barry
Roark Creek	3.0	Mouth	36,23N,22W	Taney
Roubidoux Creek	4.0	Mouth	25,36N,12W	Pulaski
S. Indian Creek	9.0	24,24N,31W	1,23N,30W	Newton
Schafer Spring Creek	2.0	Mouth	20,32N,6W	Dent
Shoal Creek	1.0	Mouth	18,41N,17W	Morgan
Shoal Creek	7.0	09,25N,29W	16,22N,21W	Newton
Spring Branch	1.0	Mouth	18,41N,17W	Morgan
Spring Creek	5.0	Mouth	14,23N,11W	Ozark
Spring Creek	6.5	Mouth	31,35N,9W	Phelps
Spring Creek	2.5	Mouth	4,41N,2W	Franklin
Spring Creek	5.5	Mouth	12,26N,24W	Stone
Spring Creek	6.0	Mouth	06,24N,13W	Douglas-Ozark
Spring Creek	2.5	Mouth	26,25N,11W	Douglas
Spring Creek	4.0	Mouth	30,25N,4W	Oregon
Spring River	11.2	13,27N,27W	20,26N,26W	Lawrence
Stone Mill Spring Branch	0.2	Mouth	Spring	Pulaski
Terrell Creek	2.0	Mouth	2,27N,23W	Christian

**Table C**  
**Waters Designated for Cold-Water Fishery**

<b>Water Body</b>	<b>Miles/Aces</b>	<b>From</b>	<b>To</b>	<b>County(ies)</b>
Tory Creek	2.5	Mouth	27,26N,22W	Stone-Christian
Turkey Creek	2.0	Mouth	16,22N,21W	Taney
Turkey Creek	1.0	Mouth	17,23N,15W	Ozark
Turnback Creek	14.0	35,30N,26W	24,28N,25W	Dade-Lawrence
Warm Fork Spring River	3.0	6,22N,5W	30,23N,5W	Oregon
Whittenburg Creek	2.5	Mouth	Hwy. 8	Crawford
Williams Creek	1.0	Mouth	28,28N,27W	Lawrence
Woods Fork Bull Creek	1.0	15,25N,21W	15,25N,21W	Christian
Yadkin Creek	3.0	Mouth	9,37N,4W	Crawford
Yankee Branch	1.0	Mouth	10,36N,4W	Crawford

**Table D**  
**Outstanding National Resource Waters**

<b>Water Body</b>	<b>Location</b>	<b>County(ies)</b>
Current River	Headwaters to Northern Ripley Co. Line Sec. 22,32N,07W to Sec. 15,25N,01E	Dent to Ripley
Jacks Fork River	Headwaters to Mouth Sec. 29,28N,07W to Sec. 9/15,29N,03W	Texas to Shannon
Eleven Point River	Headwaters to Hwy. 142 Sec. 32,25N,05W to Sec. 21,22N,02W	Oregon

**Table E**  
**Outstanding State Resource Waters**

<b>Water Body</b>	<b>Miles/Acres</b>	<b>Location</b>	<b>County(ies)</b>
Baker Branch	4 mi.	Taberville Prairie	St. Clair
Bass Creek	1 mi.	in Three Creek Conservation Area	Boone
Big Buffalo Creek	1.5 mi.	Big Buffalo Creek Conservation Area	Benton-
Morgan			
Big Creek	5.3 mi.	Sam A. Baker State Park	Wayne
Big Sugar Creek	7 mi.	Cuivre River State Park	Lincoln
Big Lake Marsh	150 ac.	Big Lake State Park	Holt
Blue Springs Creek	4 mi.	Blue Spring Creek Conservation Area	Crawford
Bonne Femme Creek	2 mi.	Three Creeks Conservation Area	Boone
Brush Creek	0.7 mi.	Bonanza Conservation Area	Caldwell
Bryant Creek	1.5 mi.	Bryant Creek Natural Area in Rippee Conservation Area	Ozark/Douglas
Bull Creek	8 mi.	Mark Twain National Forest Sec. 24,25N,21W to Sec. 22,26N,20W	Christian
Cathedral Cave Branch	5 mi.	Onondaga Cave State Park	Crawford
Chariton River	9.8 mi.	Rebels Cove Conservation Area	Putnam- Schuyler
Chloe Lowry Marsh	40 ac.	Chloe Lowry Marsh Conservation Area	Mercer
Coakley Hollow	1.5 mi.	Lake of the Ozarks State Park	Camden
Coonville Creek	2 mi.	St. Francois State Park	St. Francois
Courtois Creek	12 mi.	Mouth to Hwy. 8	Crawford
Crabapple Creek	1.0 mi.	Bonanza Conservation Area	Caldwell
Devils Ice Box Cave Branch	1.5 mi.	Rock Bridge State Park	Boone
East Fork Black River	3 mi.	Johnson's Shut-Ins State Park	Reynolds
First Nicholson Creek (East Drywood Creek)	2 mi.	Prairie State Park	Barton
Gan's Creek	3 mi.	Rock Bridge State Park	Boone
Huzzah Creek	6 mi.	Mouth to Hwy. 8	Crawford
Indian Creek	17.5 mi.	Mark Twain National Forest	Douglas- Howell
Ketchum Hollow	1.5 mi.	Roaring River State Park	Barry
Little Piney Creek	25 mi.	Mouth to 21,35N,08W	Phelps
Little Black River	3 mi.	Mud Puppy Natural History Area S22,T24N,R3E to S25,T24N,R3E	Ripley
Log Creek	0.4 mi.	Bonanza Conservation Area	Caldwel
Meramec River	8 mi.	Adjacent to Meramac State Park	Crawford/Franklin

**Table E**  
**Outstanding State Resource Waters**

<b>Water Body</b>	<b>Miles/Acres</b>	<b>Location</b>	<b>County(ies)</b>
Meramec River	3 mi.	Adjacent to Onondaga and Huzzah State Forest	Crawford
Mill Creek	5 mi.	Mark Twain National Forest	Phelps
N. Fork White River	5.5 mi.	Mark Twain National Forest	Ozark
Noblett Creek	5 mi.	Above Noblett Lake, Mark Twain National Forest	Douglas-Howell
Onondaga Cave Branch	0.6 mi.	Onondaga Cave State Park	Crawford
Pickle Creek	3 mi.	Hawn State Park	Ste. Genevieve
S. Prong L. Black River	2 mi.	In Little Black Conservation Area	Ripley
Shoal Creek	0.5 mi.	Bonanza Conservation Area	Caldwell
Spring Creek	17 mi.	Mark Twain National Forest	Douglas
Spring Creek	6.5 mi.	Mark Twain National Forest	Phelps
Taum Sauk Creek	5.5 mi.	Johnson's Shut-Ins State Park Addition S23,T33N,R2E to S5,T33N,R3E	Reynolds-Iron
Turkey Creek	4.6 mi.	In Three Creeks Conservation Area	Boone
Van Meter Marsh	80 ac.	Van Meter State Park	Saline
Whetstone Creek	5.1 mi.	Whetsone Creek Conservation Area	Callaway

**Table F**  
**Metropolitan No-Discharge Streams**

<b>Stream</b>	<b>Location</b>
<b>St. Louis Area</b>	
Gravois Creek	Entire length
Creve Coeur Creek	Creve Coeur Lake and stream above lake
Fee Fee Creek	Entire length
Coldwater Creek	Entire length
Dardenne Creek	Route DD—I-70 Highway—St. Charles County
Belleau Creek	Headwaters—0.1 mi. west of east edge of S22,T47N,R3E
Fishpot Creek	Entire length
Grand Glaize Creek	Entire length
<b>Kansas City Area</b>	
Indian Creek	Kansas state line to confluence with Blue River
Blue River	Kansas state line to 59th Street, Kansas City
Blue River (except combined sewer overflow from Brush Creek)	59th Street to Guinotte Dam
Little Blue River	Entire length
<b>Springfield Area</b>	
Pearson Creek	Entire length

Table G-Lake Classifications and Use Designations

NOTE: Fishing, Swimming and livestock watering may not be allowed in some lakes by the local management authorities. The use designations refer only to the protection of water quality for those potential uses.

WATER BODY	CLASS	ACRES	LOCATION	COUNTY(IES)	LWP	WWH	CDH	WBC	SCR	DWS	IND
100K Extent-Remaining Lakes	L3	26111.0	Statewide	Statewide	X	X		B	X		
Adrian Reservoir	L1	45.0	03,41N,31W	Bates	X	X		B	X		X
Agate Lake	L3	210.7	13,60N,06W	Lewis	X	X		A	X		
Alpine Lake	L3	233.0	13,46N,2W	Warren	X	X		A	X		
Amarugia Lake	L3	39.0	10/11,43N,32W	Cass	X	X		B	X		
Anderson's Whippoorwill Farm Lake	L3	30.0	SW SE 28,28N,11E	Stoddard	X	X		B	X		
Anthones Mill Lake	L3	91.0	SW SW 19,39N,01W	Washington	X	X		B	X		
Antimi Lake	L3	2.0	NE NE 3,48N,12W	Boone	X	X		B	X		
Apollo Lake	L3	15.0	21,36N,05E	St. Francois	X	X		B	X		
Appleton City Lake	L1	35.0	12,39N,29W	Bates	X	X		B	X		X
Archie Lakes	L1	7.3	SESE28,43N,31W	Cass	X	X		B	X		X
Armstrong Lake	L1	8.0	NE NE 28,52N,16W	Howard	X	X		B	X		X
Arno Kreter Lake	L3	5.0	27,41N,5W	Gasconade	X	X		B	X		
Athens State Park Lake	L3	8.0	30,67N,07W	Clark	X	X		A	X		
Atkinson Lake	L3	434.0	6,37N,28W	St. Clair	X	X		A	X		
Atlanta City Lake	L1	17.0	SE SW29,59N,14W	Macon	X	X		B	X		X
August A Busch Lake Number 34	L3	34.0	Landgrant01669	St. Charles	X	X		B	X		
August A Busch Lake Number 35	L3	51.0	Landgrant01669	St. Charles	X	X		B	X		
August A Busch Lake Number 37	L3	30.0	27,46N,2E	St. Charles	X	X		B	X		
Austin Community Lake	L3	21.0	30,29N,11W	Texas	X	X		A	X		
Autumn Lake	L3	4.0	21,40N,16W	Camden	X	X		B	X		
Baha Trail Lake	L3	16.0	05,39N,01E	Washington	X	X		B	X		
Baring Country Club Lake	L1	85.0	26,63N,12W	Knox	X	X		A	X		X
Bass Lake	L3	29.0	13,47N,08W	Callaway	X	X		A	X		
Bean Lake	L3	420.0	12,13,14,23, 24, 54N,37W	Platte	X	X		B	X		
Bear Creek Watershed Structure F-1	L3	27.0	6,63N,9W	Clark	X	X		B	X		
Bear Creek Watershed Structure X-5	L3	34.0	15,64N,10W	Scotland	X	X		B	X		
Beaver Lake	L3	14.0	22,25N,04E	Butler	X	X		A	X		
Bee Run Lake Number One	L3	5.0	26,38N,4E	St. Francois	X	X		B	X		
Bee Run Lake Number Three	L3	6.0	24,38N,4E	St. Francois	X	X		B	X		
Bee Run Lake Number Two	L3	4.0	23,38N,4E	St. Francois	X	X		B	X		
Bee Tree Lake	L3	10.0	03,42N,06E	St. Louis	X	X		B	X		
Belcher Branch Lake	L3	42.0	08/17,55N,34W	Buchanan	X	X		B	X		
Belle City Lake	L3	6.0	20,41N,07W	Maries	X	X		B	X		
Belleview Lake	L1	105.0	16,61N,9W	Lewis	X	X		B	X		X
Ben Branch Lake	L3	37.0	15/14,44N,08W	Osage	X	X		B	X		
Bennitt Lake	L3	47.0	2,51N,14W	Howard	X	X		B	X		
Berndt Lake	L1	21.0	NE SW30,66N,23W	Mercer	X	X		B	X		X

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WATER BODY	CLAS	ACRES	LOCATION	COUNTY(IES)	LWP	WWH	CDH	WBC	SCR	DWS	IND
Bevier Lake	L3	5.0	S SE,14,57N,15W	Macon	X	X		B	X		
Big Buffalo C.A. Lakes	L3	7.9	2,12,41N,20W	Benton	X	X		B	X		
Big Lake	L3	666.0	18&19,30,61N,39W	Holt	X	X		A	X		
Big Lake	L3	25.0	6,48N,7W	Callaway	X	X		B	X		
Big Oak Tree S.P. Lake	L3	33.0	14,23N,16E	Mississippi	X	X		B	X		
Big Soldier Lake	L3	5.0	36,50N,19W	Saline	X	X		B	X		
Bilby Ranch Lake	L3	95.0	13/24,64N,38W	Nodaway	X	X		B	X		
Binder Lake	L3	127.0	SW SE36,45N,13W	Cole	X	X		B	X		
Blind Pony Lake	L3	96.0	NW SE18,49N,22W	Saline	X	X		B	X		
Bloodland Lake (Ft. Wood)	L3	38.1	04,34N,11W	Pulaski	X	X		B	X		
Blue Mountain Lake	L1	14.0	NW SE,09,33N,5E	Madison	X	X		B	X		X
Blue Springs Lake	L3	642.0	33 ,49N,31W	Jackson	X	X		A	X		
Blues Pond	L3	10.0	09,37N,08W	Phelps	X	X		B	X		
Bluestem Lake	L3	13.0	22,47N,31W	Jackson	X	X		B	X		
Bo Co Mo Lake	L3	140.0	NW NE10,49N,13W	Boone	X	X		B	X		
Bodarc Lake	L3	13.0	23,47N,31W	Jackson	X	X		B	X		
Boggs Lake	L3	32.0	21-28,44N,05W	Gasconade	X	X		B	X		
Bonne Aqua Lake	L3	6.0	SE NE 26,38N,04E	St. Francois	X	X		B	X		
Bonne Terre City Lake	L3	10.0	SUR 467,37N,04E	St. Francois	X	X		B	X		
Bowling Green Reservoir	L1	41.0	NW NW29,53N,02W	Pike	X	X		B	X		X
Brays Lake	L3	162.0	NE NW35,37N,08W	Phelps	X	X		B	X		
Breckenridge Lake	L1	13.0	NE SW3,57N,26W	Caldwell	X	X		B	X		X
Brookfield Lake	L1	120.0	SE SE33,58N,19W	Linn	X	X		B	X		X
Browning Lake	L3	120.0	22,25,26,27,3N,22E	Buchanan	X	X		B	X		
Bucklin Lake	L1	17.0	11,57N,18W	Linn	X	X		B	X		X
Buffalo Bill Lake	L3	45.0	28,58N,31W	DeKalb	X	X		B	X		
Buffalo Lake	L3	2.0	9,48N,7W	Callaway	X	X		B	X		
Bull Shoals Lake	L2	9000.0	21/34,20N,15W	Ozark	X	X	X	A	X		
Burlington Lake	L3	21.0	34,57N,30W	Clinton	X	X		B	X		
Bushwacker Lake	L3	148.0	26,34N,32W	Vernon	X	X		B	X		
Butler Lake	L1	71.0	NW NW14,40N,32W	Bates	X	X		B	X		X
Butterfly Lake	L3	65.0	NW NE34,36N,07E	Ste. Genevieve	X	X		B	X		
C and A Lake	L3	39.0	25,51N,09W	Audrain	X	X		B	X		
Callaway Lake	L3	135.0	06,45N,02E	St. Charles	X	X		A	X		
Cameron Lake #1	L1	25.0	SW SW10,57N,30W	DeKalb	X	X		B	X		X
Cameron Lake #2	L1	31.0	SW SW10,57N,30W	DeKalb	X	X		B	X		X
Cameron Lake #3	L1	92.0	NW NE09,57N,30W	DeKalb	X	X		B	X		X
Cameron Lake #4 (Grindstone Reservoir)	L1	173.0	NE NW 08,57N,30W	DeKalb	X	X		B	X		X
Camp Solidarity Lake	L3	10.0	24,43N,02E	Franklin	X	X		B	X		
Carrollton Recreation Lake	L3	61.0	SE NW07,52N,23W	Carroll	X	X		B	X		
Catclaw Lake	L3	42.0	14,47N,31W	Jackson	X	X		B	X		
Cattail Lake	L3	4.0	5,46N,15W	Cooper	X	X		B	X		
Cedar Hill Lake Number 1	L3	10.0	35,42N,3E	Jefferson	X	X		A	X		
Cedar Hill Lake Number 2	L3	10.0	35,42N,3E	Jefferson	X	X		A	X		
Cedar Hill Lake Number 3	L3	2.0	35,42N,3E	Jefferson	X	X		A	X		
Cedar Lake	L3	21.0	35,48N,13W	Boone	X	X		A	X		

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WATER BODY	CLAS	ACRES	LOCATION	COUNTY(IES)	LWP	WWH	CDH	WBC	SCR	DWS	IND
Cedar Lake	L3	45.0	SE SE 21,37N,05E	St. Francois	X	X		A	X		
Charity Lake	L3	9.0	NW SE 1,65N,41W	Atchison	X	X		B	X		
Chaumiere Lake	L3	3.0	6,50N,32W	Clay	X	X		B	X		
Church Lake	L3	3.0	4,46N,15W	Moniteau	X	X		B	X		
City Lake Harrisonville	L1	28.0	34,45N,31W	Cass	X	X		B	X		X
Clarence Cannon Memorial Structure Number 4	L3	9.0	Landgrant01743	Lincoln	X	X		B	X		
Clarence Cannon Memorial Watershed Structure Number 1 Reservoir	L3	23.0	28,51N,1E	Lincoln	X	X		B	X		
Clarence Cannon Memorial Watershed Structure Number 15	L3	20.0	Landgrant01819	Lincoln	X	X		B	X		
Clarence Lake #2	L1	31.0	15,57N,12W	Shelby	X	X		B	X		X
Clear Fork Lake	L3	16.0	30,46N,24W	Johnson	X	X		B	X		
Clear Lake	L3	13.0	36 39N,4E	Jefferson	X	X		A	X		
Clearwater Lake	L2	1635.0	6,28N,3E	Wayne	X	X		A	X		
Cleveland Reservoir	L1	10.0	29,45N,33W	Cass	X	X		B	X		X
Clover Dell Park Lake	L3	10.0	13,45N,22W	Pettis	X	X		B	X		
Cloverleaf Farm Lake	L3	50.0	19,47N,1E	St. Charles	X	X		B	X		
Cole Lake	L3	40.0	SE10,38N,04E	Jefferson	X	X		A	X		
Cool Valley Lake	L3	19.0	9,40N,2E	Franklin	X	X		B	X		
Cooley Lake	L3	380.0	02,03,11, 51N,30W	Clay	X	X		B	X		
Coot Lake	L3	20.0	22,47N,31W	Jackson	X	X		B	X		
Cosmo-Bethel Lake	L3	6.0	NW36,48N,13W	Boone	X	X		B	X		
Cottontail Lake	L3	22.0	14,47N,31W	Jackson	X	X		B	X		
Council Bluff Lake	L3	423.0	23,35N,01E	Iron	X	X		A	X		
Crane Lake	L3	109.0	W33,32N,04E	Iron	X	X		B	X		
Creighton Lake	L1	18.0	NW SE,14,43N,29W	Cass	X	X		B	X		X
Crescent Lake	L3	8.0	NE 02,41N,01W	Franklin	X	X		B	X		
Creve Coeur Lake	L3	327.0	20,46N,05E	St. Louis	X	X		B	X		
Crowder St. Park Lake	L3	18.0	12,61N,25W	Grundy	X	X		A	X		
Crystal Lake	L3	122.0	NW SW32,53N,29W	Ray	X	X		A	X		X
Cut-Off Lake	L3	148.5	01,12,57N,36W	Buchanan	X	X		B	X		
Cut-Off Lake	L3	674.0	26,27,34,35,53N,19W	Chariton	X	X		B	X		
D C Rogers Lake	L1	195.0	NW NW10,50N,16W	Howard	X	X		B	X		X
Dairy Farm Lake Number 1	L3	14.0	Landgrant02835	Boone	X	X		B	X		
Daniel Boone Lake	L3	288.0	32,58N,12W	Shelby	X	X		B	X		
Davis Lake	L3	44.0	NE NW15,50N,16W	Howard	X	X		B	X		
Dearborn Reservoir	L1	7.0	31,55N,34W	Buchanan	X	X		B	X		X
Deer Ridge Community Lake	L3	45.0	18,62N,8W	Lewis	X	X		B	X		
Deer Run Lake	L3	31.0	19,34N,7E	Madison	X	X		B	X		
Delaney Lake	L3	100.0	30,27N,16E	Mississippi	X	X		B	X		
Dexter City Lake	L3	11.0	22,25N,10E	Stoddard	X	X		B	X		
Downing Reservoir	L1	22.0	17,66N,13W	Schuyler	X	X		B	X		X
Drexel City Reservoir South	L1	51.0	7,42N,33W	Bates	X	X		B	X		X
Drexel Lake	L1	28.0	6, 42N,33W	Bates	X	X		B	X		X
Duck Creek	L3	1730.0	31,28N,09E; 5, 27N, 9E	Wayne	X	X		B	X		
Eagle Sky Lake	L3	62.0	NW NW35,30N,04E	Wayne	X	X		B	X		
Eagleville Lake	L1	40.0	33,66N,27W	Harrison	X	X		A	X		X

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East Arrowhead Lake	L3	55.0	SE SE18,23N,08W	Howell	X	X	X	A	X		
Edina Lake	L1	9.0	07,62N,11W	Knox	X	X		B	X	X	
Edina Reservoir	L1	51.0	12,62N,11W	Knox	X	X		B	X	X	
Edwin A Pape Lake	L1	272.5	20,48N,24W	Lafayette	X	X		B	X	X	
Ella Ewing Community Lake	L3	12.0	21,64N,10W	Scotland	X	X		A	X		
Elmwood City Lake	L1	197.0	NW 35,63N,20W	Sullivan	X	X		B	X	X	
Elsie Lake	L3	17.0	30,37N,02E	Washington	X	X		A	X		
Ethel Lake	L1	23.0	NE NW36,59N,17W	Macon	X	X		B	X	X	
Ewing Lake	L1	38.0	6,60N,7W	Lewis	X	X		B	X	X	
Fawn Lake	L3	26.0	13,43N,02W	Franklin	X	X		B	X		
Fellows Lake	L1	800.0	NW NE22,30N,21W	Greene	X	X		A	X	X	
Finger Lakes	L3	118.0	19,30,31,50N,12W,24,25,36,50N13 W	Boone	X	X		A	X		
Flat Rock Lake	L3	18.0	31,41N,3E	Jefferson	X	X		B	X		
Flight Lake	L3	100.0	26,36N,32W	Vernon	X	X		B	X		
Fon-Du-Lac Reservoir	L3	24.0	Landgrant01331	Jefferson	X	X		A	X		
Forest Lake	L1	580.0	SE SW14,62N,16W	Adair	X	X		A	X	X	
Fountain Grove Lakes	L3	1366.3	35,57N,22W	Linn	X	X		B	X		
Fourche Lake	L3	49.0	22,23N,1W	Ripley	X	X		A	X		
Fox Valley Lake	L3	105.0	27,66N,8W	Clark	X	X		B	X		
Foxboro Lake	L3	22.0	14,42N,4W	Franklin	X	X		B	X		
Foxtail Lake	L3	3.0	4,46N,1W	Warren	X	X		B	X		
Fredricktown City Lake	L1	80.0	06,33N,07E	Madison	X	X		B	X	X	
Freeman Lake	L1	13.0	SW SW18,44N,32W	Cass	X	X		B	X	X	
Frisco Lake	L3	5.0	SE SE 02,37N,08W	Phelps	X	X		B	X		
Garden City Lake	L1	26.0	31,44N,29W	Cass	X	X		B	X	X	
Garden City New Lake	L1	39.0	NW18,43N,29W	Cass	X	X		B	X	X	
Gerald City Lake	L3	5.0	12,42N,4W	Franklin	X	X		B	X		
Glover Spring Lake	L3	23.0	13,47N,09W	Callaway	X	X		B	X		
Goff Spring Lake	L3	13.0	23,38N,4E	St. Francois	X	X		B	X		
Golden Eagle Lake	L3	105.0	SE SW16,48N,04W	Montgomery	X	X		B	X		
Goose Creek Lake	L3	316.0	25,38N,6E	Ste. Genevieve	X	X		A	X		
Gopher Lake	L3	38.0	23,47N,31W	Jackson	X	X		B	X		
Gower Lake	L1	11.0	10,55N,33W	Clinton	X	X		B	X	X	
Green City Lake	L1	57.0	SE NE16,63N,18W	Sullivan	X	X		B	X	X	
Green City Lake (Old)	L1	60.0	SE18,63N,18W	Sullivan	X	X		A	X	X	
Hager Lake	L3	9.0	SUR 2969,35N,05E	St. Francois	X	X		B	X		
Hamilton Lake	L1	80.0	SW SW15,57N,28W	Caldwell	X	X		B	X	X	
Happy Holler Lake	L3	68.0	8,60N,34W	Andrew	X	X		B	X		
Harmony Mission Lake	L3	96.0	15,38N,32W	Bates	X	X		B	X		
Harper Lake	L3	26.0	16,45N,32W	Cass	X	X		B	X		
Harrison County Lake	L1	280.0	17/30,65N,28W	Harrison	X	X		B	X	X	
Harrisonville City Lake	L1	419.0	SW SW26,46N,31W	Cass	X	X		B	X	X	
Harry S Truman Reservoir	L2	55600.0	7,40N,22W	Benton	X	X		A	X	X	
Hazel Creek Lake	L1	518.0	1,63N,16W	Adair	X	X		B	X	X	
Hazel Hill Lake	L3	62.0	27,47N,26W	Johnson	X	X		B	X		

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Helvey Park Lake	L1	11.0	26,53N,33W	Clay	X	X		B	X	X	
Hemitite Lake	L3	215.0	19,35N,4E	St. Francois	X	X		B	X		
Henke Lake	L3	22.0	20,46N,9W	Callaway	X	X		B	X		
Henry Sever Lake	L3	153.0	14,60N,10W	Knox	X	X		A	X		
Hermit Hollow Lake	L3	8.0	29,44N,02E	Franklin	X	X		B	X		
Hi Point Lake	L3	3.0	24,39N,01E	Washington	X	X		B	X		
Higbee Lake	L1	13.0	SE SW09,52N,14W	Randolph	X	X		B	X	X	
Higginsville Reservoir (North)	L1	47.0	NE SW04,49N,25W	Lafayette	X	X		B	X	X	
Higginsville Reservoir (South)	L1	147.1	SW NE09,49N,25W	Lafayette	X	X		B	X	X	
Holden City Lake	L1	290.2	29,46N,28W	Johnson	X	X		B	X	X	
Holden Lake	L3	11.0	12,45N,28W	Johnson	X	X		B	X		
Holden Lake	L3	11.0	07,45N,27W	Johnson	X	X		B	X		
Holiday Acres Lake	L3	206.1	SE SW17,55N,14W	Randolph	X	X		B	X		
Horseshoe Lake	L3	56.0	15,56N,36W	Buchanan	X	X		B	X		
Horseshoe Lake	L3	5.0	8,48N,7W	Callaway	X	X		B	X		
Hough Park Lake	L3	10.0	19,44N,11W	Cole	X	X		B	X		
Houston Lake	L3	16.0	NW 33,51N,33W	Platte	X	X		A	X		
Howell Mill Lakes	L3	97.0	17,36N,01E	Washington	X	X		A	X		
Hunnewell Lake	L3	228.0	NW SW25,57N,09W	Shelby	X	X		B	X		
Hurland Severs Lake	L3	13.0	1,61N,13W	Knox	X	X		A	X		
Incline Village Lake	L3	165.0	6,47N,1E	St. Charles	X	X		B	X		
Indian Creek Community Lake	L3	199.0	27,59N,25W	Livingston	X	X		B	X		
Indian Lake	L3	279.0	22,15,23,39N,05W	Crawford	X	X		A	X		
Iron Mountain Lake	L3	79.0	SE SW32,35N,04E	St. Francois	X	X		B	X		
Izaak Walton Lake	L3	11.0	32,36N,31W	Vernon	X	X		B	X		
Jackass Bend	L3	200.0	32,51N,29W	Ray	X	X		B	X		X
Jackrabbit Lake	L3	28.0	15,47N,31W	Jackson	X	X		B	X		
Jamesport City Lake	L1	16.0	22,60N,26W	Daviess	X	X		B	X	X	
Jamesport Community Lake	L1	27.0	NE 20,60N,26W	Daviess	X	X		A	X	X	
Jasper Lake	L3	43.0	12,60N,06W	Lewis	X	X		A	X		
Jaycee Park Lake	L3	8.0	17,44N,12W	Cole	X	X		B	X		
Jo Lee Lake	L3	8.0	NESE 19,36N,5E	St. Francois	X	X		B	X		
Johnson Lake	L3	14.0	6,46N,15W	Cooper	X	X		B	X	X	
Junges Lake	L3	37.0	10,41N,21W	Benton	X	X		A	X		
Kahrs-Boger Park Lake	L3	2.0	15,44N,20W	Pettis	X	X		B	X		
Kellogg Lake	L3	22.0	34,29N,31W	Jasper	X	X		A	X		
King City Lake (South)	L1	29.0	SW SW34,61N,32W	Gentry	X	X		B	X	X	
King City New Reservoir	L1	25.4	28,61N,32W	Gentry	X	X		B	X	X	
King City Old Reservoir	L1	12.0	SW NE28,61N,32W	Gentry	X	X		B	X	X	
King Lake	L3	204.0	13,60N,32W	DeKalb	X	X		A	X	X	
Kiwanis Lake	L3	4.0	SW23,51N,9W	Audrain	X	X		B	X		
Klontz Lake	L3	14.0	02,39N,04W	Crawford	X	X		A	X		
Knox Village Lake	L3	3.0	1,47N,32W	Jackson	X	X		B	X		
Koeneman Park Lake	L3	5.0	8,46N,07E	St. Louis	X	X		B	X		
Kraut Run Lake	L3	164.0	Landgrant00056	St. Charles	X	X		B	X		
L. Prairie Comm. Lake	L3	95.0	SE SE21,38N,7W	Phelps	X	X		B	X		

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La Plata City Lake	L1	89.0	14,60N,14W	Macon	X	X		B	X	X	
La Plata Lake	L1	22.0	9,60N,14W	Macon	X	X		B	X	X	
Lac Benet Lake	L3	7.0	20,37N,4E	St. Francois	X	X		A	X		
Lac Bergerac	L3	7.0	19,37N,4E	St. Francois	X	X		A	X		
Lac Bourbon	L3	7.0	19,37N,4E	St. Francois	X	X		A	X		
Lac Calista	L3	5.0	28,37N,4E	St. Francois	X	X		A	X		
Lac Capri	L3	106.0	30,37N,4E	St. Francois	X	X		A	X		
Lac Carmel	L3	55.0	18,37N,4E	St. Francois	X	X		A	X		
Lac Catalina	L3	5.0	19,37N,4E	St. Francois	X	X		A	X		
Lac Darcie	L3	4.0	19,37N,4E	St. Francois	X	X		A	X		
Lac Lafitte	L3	36.0	28,37N,4E	St. Francois	X	X		A	X		
Lac Marseilles	L3	48.0	29,37N,4E	St. Francois	X	X		A	X		
Lac Michel	L3	7.0	19,37N,4E	St. Francois	X	X		A	X		
Lac Renee	L3	4.0	20,37N,4E	St. Francois	X	X		A	X		
Lac Shayne	L3	76.0	25,37N,3E	Washington	X	X		A	X		
Lac Tiffany	L3	4.0	30,37N,4E	St. Francois	X	X		A	X		
Lac Veron	L3	3.0	30,37N,4E	St. Francois	X	X		A	X		
Lake Allaman	L3	6.0	NE 24,56N,30W	Clinton	X	X		A	X		
Lake Anne	L3	81.0	Landgrant02046	Ste. Genevieve	X	X		B	X		
Lake Annette	L3	65.0	01,44N,33W	Cass	X	X		B	X		
Lake Arrowhead	L3	101.0	18,54N,30W	Clinton	X	X		A	X		
Lake Arrowhead	L3	23.0	NW NE 31, 42N, 2E	Franklin	X	X		A	X		
Lake Boutin	L3	20.0	15,32N,14E	Cape Girardeau	X	X		A	X		
Lake Briarwood	L3	69.0	SW NE33,40N,04E	Jefferson	X	X		A	X		
Lake Buteo	L3	7.0	29,46N,24W	Johnson	X	X		B	X		
Lake Champetra	L3	58.0	NW13,45N,12W	Boone	X	X		A	X		
Lake Cherokee	L3	6.0	14,36N,03E	Washington	X	X		B	X		
Lake Contrary	L3	291.0	26,27,35,57N,36W	Buchanan	X	X		A	X		
Lake Girardeau	L3	144.0	SW SW09,30N,11E	Cape Girardeau	X	X		B	X		
Lake Innsbrook	L3	37.0	8,46N,1W	Warren	X	X		A	X		
Lake Jacomo	L3	998.0	NE NW11,48N,31W	Jackson	X	X		A	X		
Lake Killarney	L3	61.0	NW NW01,33N,04E	Iron	X	X		A	X		
Lake Lacawanna	L3	10.0	SE SE 11,38N,05E	St. Francois	X	X		B	X		
Lake Lincoln	L3	51.0	8,49N,1E	Lincoln	X	X		A	X		
Lake Lochaweenoo	L3	39.0	24,47N,08W	Callaway	X	X		A	X		
Lake Loraine	L3	37.0	SUR 1970, 41N,04E	Jefferson	X	X		A	X		
Lake Lotawana	L3	487.0	SE SE29,48N,30W	Jackson	X	X		A	X		
Lake Lucern	L3	43.0	6,46N,1W	Warren	X	X		A	X		
Lake Luna	L3	23.0	4,44N,31W	Cass	X	X		B	X		
Lake Marie	L3	60.0	NE NW 36,66N,24W	Mercer	X	X		A	X		
Lake McGinness	L3	50.0	NW20,55N,30W	Clinton	X	X		B	X		
Lake Montowese	L3	39.0	27,43N,4E	Jefferson	X	X		A	X		
Lake Nehai Tonkayea	L3	228.0	NW NE11,55N,18W	Chariton	X	X		A	X		
Lake Nell	L3	26.0	22,47N,31W	Jackson	X	X		B	X		
Lake Niangua	L3	256.0	19,37N,17W	Camden	X	X		A	X		
Lake Northwood	L3	77.0	SE NE33,43N,05W	Gasconade	X	X		A	X		

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Lake Ocie	L3	62.0	Landgrant00884	Ste. Genevieve	X	X		A	X		
Lake of the Oaks	L3	53.0	SE SW07,63N,06W	Clark	X	X		A	X		
Lake of the Ozarks	L2	59520.0	SE SE19,40N,15W	Camden	X	X		A	X		
Lake of the Woods	L3	3.0	NE SW 02,48N,12W	Boone	X	X		B	X		
Lake of the Woods	L3	7.0	11,48N,33W	Jackson	X	X		B	X		
Lake of the Woods Country Club Lake Number 2	L3	1.0	2,48N,12W	Boone	X	X		B	X		
Lake Paho	L3	273.0	NE SE25,65N,25W	Mercer	X	X		B	X		
Lake Sainte Louise	L3	71.0	Landgrant00929	St. Charles	X	X		A	X		
Lake Scioto	L3	5.0	30,38N,6W	Phelps	X	X		B	X		
Lake Serene	L3	59.0	NW NE03,42N,02E	Franklin	X	X		A	X		
Lake Sherwood	L3	120.0	SW SE11,45N,01W	Warren	X	X		A	X		
Lake Ski	L3	64.0	Landgrant00884	Ste. Genevieve	X	X		A	X		
Lake Springfield	L3	293.0	19,28N,21W	Greene	X	X		B	X		X
Lake St. Clair #1	L3	52.0	SW SE02,41N,01W	Franklin	X	X		A	X		
Lake St. Louis	L3	444.0	SUR 54 (NE SW26,47N,02E)	St. Charles	X	X		A	X		
Lake Taneycomo	L2	2118.6	SW NE8,23N,20W	Taney	X	X	X	A	X		X
Lake Tapawingo	L3	83.0	NE NE34,49N,31W	Jackson	X	X		A	X		
Lake Tebo	L3	73.0	12,44N,22W	Pettis	X	X		B	X		
Lake Thunderbird	L3	33.0	NE,NW 5,41N,01E	Franklin	X	X		A	X		
Lake Thunderhead	L1	859.0	NE NE15,66N,19W	Putnam	X	X		A	X		X
Lake Timber Ridge	L3	35.0	SW SE 16,43N,06W	Gasconade	X	X		A	X		
Lake Timberline	L3	39.0	24,38N,4E	St. Francois	X	X		A	X		
Lake Tishomingo	L3	120.0	Landgrant03027	Jefferson	X	X		A	X		
Lake Tom Sawyer	L3	4.0	4,54N,8W	Monroe	X	X		A	X		
Lake Torino	L3	7.0	20,42N,02E	Franklin	X	X		B	X		
Lake Tywappity	L3	43.0	SW SE08,29N,13E	Scott	X	X		A	X		
Lake Viking	L1	552.0	09,59N,28W	Daviess	X	X		A	X		X
Lake Wanda Lee	L3	97.0	SUR 884, 37N, 7E	Ste. Genevieve	X	X		A	X		
Lake Wappapello	L2	7827.0	3,26N,7E	Wayne	X	X		A	X		
Lake Wauwanoka	L3	93.0	SE NW01,40N,04E	Jefferson	X	X		A	X		
Lake Winnebago	L3	272.0	NE NW09,46N,31W	Cass	X	X		A	X		
Lakes of Deerwood Number One	L3	8.0	32,42N,4E	Jefferson	X	X		B	X		
Lakeview Park Lake	L3	25.0	SW35,51N,09W	Audrain	X	X		B	X		
Lakewood Lakes	L3	279.0	NE NE07,48N,31W & SW SW 5, 48N, 31W	Jackson	X	X		A	X		
Lamar Lake	L1	148.0	SW NW32,32N,30W	Barton	X	X		B	X		X
Lamine River C.A. Lakes	L3	37.0	25,26,27,36,46N,19W; 2,11,45N,19W; 7,18,45N,18W.	Cooper	X	X		B	X		
Lancaster City Lake - New	L1	56.0	23,66N,15W	Schuyler	X	X		B	X		X
Lancaster Lake - Old	L1	23.0	SW NE14,66N,15W	Schuyler	X	X		B	X		X
Lane Lake	L3	10.0	32,37N,01W	Washington	X	X		A	X		
Lawson City Lake	L1	25.0	31,54N,29W	Ray	X	X		A	X		X
Leisure Lake	L3	38.0	NE SE05,61N,25W	Grundy	X	X		A	X		
Leisure Lake	L3	45.0	33,48N,08W	Callaway	X	X		A	X		
Lewis & Clark Lake	L3	403.0	27,28,33,55N,37W	Buchanan	X	X		A	X		
Lewis Lake	L3	6.0	SE, NE 10,26N,11E	Stoddard	X	X		B	X		
Lewistown Lake	L1	35.0	NW SW08,61N,08W	Lewis	X	X		B	X		X

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Liberty Park Lake	L3	1.0	04,45N,21W	Pettis	X	X		B	X		
Limpp Community State Lake	L3	27.0	29,61N,32W	Gentry	X	X		B	X		
Linneus Lake	L1	17.0	NE SW36,59N,21W	Linn	X	X		B	X	X	
Lions Lake	L3	11.0	16,44N,01W	Franklin	X	X		B	X		
Lions Lake	L3	13.0	26,46N,26W	Johnson	X	X		B	X		
Lisle Pond	L3	22.0	05,43N,33W	Cass	X	X		B	X		
Little Compton Lake	L3	36.0	29,32,55N,21W	Carroll	X	X		B	X		
Little Dixie Lake	L3	199.0	26,48N,11W	Callaway	X	X		B	X		
Loch Leonard	L3	27.0	SE18,46N,30W	Cass	X	X		B	X		
Loggers Lake	L3	21.0	10,15,31N,03W	Shannon	X	X		A	X		
Lone Jack Lake	L3	31.0	11,47N,30W	Jackson	X	X		B	X		
Lone Tree Lake	L3	21.0	N NE15,46N,6W	Montgomery	X	X		B	X		
Lonedell Lake	L3	40.0	16,40N,02E	Franklin	X	X		B	X		
Long Branch Lake	L2	2686.0	NW18,57N,14W	Macon	X	X		A	X	X	
Long Lake	L3	10.0	NW NW 03,25N,12E	Stoddard	X	X		B	X		
Longview Lake	L2	953.0	04,47N,32W	Jackson	X	X		A	X		
Lost Valley Lake	L3	37.0	SE NE17,43N,04W	Gasconade	X	X		A	X		
Lower Taum Sauk Lake	L3	200.0	33,33N,02E	Reynolds	X	X		B	X		
Lucky Clover Lake	L3	20.0	20,38N,04W	Crawford	X	X		A	X		
Mac Lake - Ziske	L3	28.0	SW NE 17,34N,05W	Dent	X	X		B	X		
Macon Lake	L3	189.0	SE NW17,57N,14W	Macon	X	X		B	X	X	
Malta Bend Community Lake	L3	4.0	25,51N,23W	Saline	X	X		B	X		
Manito Lake	L3	77.0	08,09,44N,17W	Moniteau	X	X		B	X		
Maple Leaf Lake	L3	127.0	04,48N,26W	Lafayette	X	X		B	X		
Marais Temps Clair	L3	725.7	19,48N,06E and 24,48N,5E	St. Charles	X	X		B	X		
Marceline Reservoir	L1	68.0	SE 28,57N,18W	Linn	X	X		B	X	X	
Mark Twain Lake	L2	18132.0	26,55N,07W	Ralls	X	X		A	X	X	
Marshall Habilitation Center Lake	L3	10.0	11,50N,21W	Saline	X	X		B	X		
Martin Lakes	L3	17.0	11,26N,11E	Stoddard	X	X		B	X		
Maysville Lake	L1	27.0	NE NE 4, 58N,31W	DeKalb	X	X		B	X	X	
Maysville Lake	L1	12.0	NW NE03,58N,31W	DeKalb	X	X		B	X	X	
McCormack Lake	L3	9.0	NW SW 24,25N,04W	Oregon	X	X		A	X		
McDaniel Lake	L1	218.0	NE SE26,30N,22W	Greene	X	X		B	X	X	
Melody Lake	L3	32.0	27,42N,03W	Franklin	X	X		A	X		
Memphis Lake	L1	253.0	15,65N,12W	Scotland	X	X		B	X	X	
Memphis Reservoir	L1	41.0	14,65N,12W	Scotland	X	X		B	X	X	
Middle Fork Water Company Lake	L1	98.0	6,63N,31W	Gentry	X	X		B	X	X	
Milan Lake North	L1	13.0	SE SE02,62N,20W	Sullivan	X	X		B	X	X	
Milan Lake South	L1	37.0	SE SE,02,62N,20W	Sullivan	X	X		B	X	X	
Mineral Lake	L3	8.0	1,42N,3W	Franklin	X	X		B	X		
Monopoly Marsh	L3	2329.0	16,27,8E	Wayne	X	X		B	X		
Monroe City Lake	L1	94.0	34,56N,7W	Ralls	X	X		A	X	X	
Monroe City Lake A	L1	17.0	NW NW13,56N,08W	Monroe	X	X		B	X	X	
Monroe Lake B	L1	60.0	30,56N,7W	Monroe	X	X		B	X	X	
Monsanto Lake	L3	18.0	SENW 20,36N,5E	St. Francois	X	X		A	X		
Monte Gurwit Lake	L3	11.0	4,50N,13W	Boone	X	X		B	X		

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Montrose Lake	L3	1444.0	NE NW33,41N,27W	Henry	X	X		B	X		X
Morel Lake	L3	2.0	30,46N,24W	Johnson	X	X		B	X		
Mozingo Lake	L1	998.0	13,64N,35W	Nodaway	X	X		B	X	X	
New Cambria Lake	L1	9.0	SW NE07,57N,16W	Macon	X	X		B	X	X	
New City Lake	L3	78.0	27,64N,28W	Harrison	X	X		A	X		
New La Belle Lake	L1	18.0	16,61N,09W	Lewis	X	X		B	X	X	
New Marceline City Lake	L1	160.0	14,56N,19W	Chariton	X	X		B	X	X	
Nims Lake	L3	251.0	24,34N,6E	Madison	X	X		A	X		
Noblett Lake	L3	26.0	25,26N,11W	Douglas	X	X		A	X		
Nodaway Lake	L3	73.0	SW NE20,65N,35W	Nodaway	X	X		B	X		
Norfolk Lake	L2	1000.0	21N,12W	Ozark	X	X		A	X		
North Lake	L3	38.0	28,45N,31W	Cass	X	X		B	X		
North Lake	L3	7.0	32,49N,7W	Callaway	X	X		B	X		
North Sever Lake	L3	12.5	20,63N,11W	Knox	X	X		B	X		
Odessa Lake	L1	87.0	NW NE15,48N,28W	Lafayette	X	X		B	X	X	
Odessa Lake (Old)	L1	22.0	NW NW14,48N,28W	Lafayette	X	X		B	X	X	
Old Bethany City Lake	L1	18.0	2,63N,28W	Harrison	X	X		B	X	X	
Old Lake	L1	28.0	30,53N,2W	Pike	X	X		B	X	X	
Old Lake	L1	20.0	15,57N,12W	Shelby	X	X		B	X	X	
Old Mud Lake	L3	126.0	16,20,21, 56N,36W	Buchanan	X	X		B	X		
Old Plattsburg Lake	L1	15.0	13,55N,32W	Clinton	X	X		B	X	X	
Old Reservoir	L1	20.0	3,53N,14W	Randolph	X	X		B	X	X	
Opossum Hollow Lake	L3	63.0	SW NE29,39N,03W	Crawford	X	X		A	X		
Oscie Ora Acres Lake	L3	50.0	10,28N,33W	Jasper	X	X		B	X		
Otter Lake	L3	250.0	17,24N,09E	Stoddard	X	X		B	X		
Painted Rock Lake	L3	5.0	11,42N,11W	Osage	X	X		B	X		
Palmer Lake	L3	102.0	22,36N,01E	Washington	X	X		A	X		
Panther Creek D-1 Lake	L3	28.0	32,65N,26W	Harrison	X	X		B	X		
Parker Lake #1	L3	20.0	SE SE 31,35N,09E	Perry	X	X		A	X		
Parker Lake No. 2	L3	80.0	NE SW32,35N,09E	Perry	X	X		A	X		
Parole Lake	L3	42.0	07,36N,01E	Washington	X	X		A	X		
Paul Herring Lake	L3	44.0	17,46N,9W	Callaway	X	X		B	X		
Peaceful Valley Lake	L3	158.0	NE NE25,42N,06W	Gasconade	X	X		A	X		
Peculiar Lake	L1	25.0	SE SW22,45N,32W	Cass	X	X		B	X	X	
Penn's Pond Lake	L3	8.0	06,34N,11W	Pulaski	X	X		B	X		
Perco Lakes	L3	21.7	SW5, NW8 ,34N,10E	Perry	X	X		B	X		
Perry C.A. Lakes	L3	16.4	28.33.34.36.48N,24W;30,48N,23W	Johnson	X	X		B	X		
Perry City Lake	L1	18.0	34,54N,7W	Ralls	X	X		B	X	X	
Perry City Lake Upper	L1	7.0	34,54N,7W	Ralls	X	X		B	X	X	
Perry County Community Lake	L3	89.0	SW NE22,35N,10E (SUR 856)	Perry	X	X		B	X		
Perry Phillips Lake	L3	41.0	32,48N,12W	Boone	X	X		B	X		
Pershing St. Park Lakes	L3	12.0	2,11,57N,21W	Linn	X	X		A	X		
Peters Lake	L3	62.0	NW NW4,50N,16W	Howard	X	X		B	X		
Pike Lake	L3	17.0	02,59N,25W	Livingston	X	X		A	X		
Pim Lake	L3	7.0	SWNW 20,36N,5E	St. Francois	X	X		A	X		
Pinewoods Lake	L3	22.0	07,26N,03E	Carter	X	X		B	X		

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Pinnacle Lake	L3	115.0	SE NE24,47N,05W	Montgomery	X	X		A	X		
Plattsburg 6 Mi. Lane Lk.	L3	57.0	SW SE11,55N,32W	Clinton	X	X		B	X	X	
Pleasant Hill Lake	L1	91.0	SW SE01,46N,31W	Cass	X	X		B	X	X	
Plover Lake	L3	14.0	15,47N,31W	Jackson	X	X		B	X		
Poague C.A. Lakes	L3	80.0	19,30,42N,26W, 24,42N,27W	Henry	X	X		B	X		
Pomme de Terre Lake	L2	7675.0	2,36N,22W	Polk	X	X		A	X		
Pond Number 1	L3	3.0	8,48N,7W	Callaway	X	X		B	X		
Pond Number 2	L3	1.0	8,48N,7W	Callaway	X	X		B	X		
Pond Number 2	L3	4.0	32,43N,25W	Henry	X	X		B	X		
Pond Number 3	L3	1.0	8,48N,7W	Callaway	X	X		B	X		
Pond Number 3	L3	3.0	32,43N,25W	Henry	X	X		B	X		
Pond Number 4	L3	1.0	8,48N,7W	Callaway	X	X		B	X		
Pond Number 5	L3	1.0	5,48N,7W	Callaway	X	X		B	X		
Pond Number 6	L3	1.0	6,48N,7W	Callaway	X	X		B	X		
Pond Number 7	L3	1.0	5,48N,7W	Callaway	X	X		B	X		
Pond Number 8	L3	1.0	16,48N,7W	Callaway	X	X		B	X		
Pony Express Lake	L3	256.0	33,58N,31W	DeKalb	X	X		A	X		
Port Hudson Lake	L3	53.0	16,43N,3W	Franklin	X	X		B	X		
Port Perry Lake	L3	155.0	NE SE08,34N,09E	Perry	X	X		B	X		
Potosi Lake	L3	20.0	SW NW 35,37N,03E	Washington	X	X		A	X		
Prairie Lee Lake	L3	144.0	NE SW27,48N,31W	Jackson	X	X		A	X		
Primrose Lake	L3	33.0	23,38,04E	St. Francois	X	X		B	X		
Radio Springs Lake	L3	8.0	08,35N,31W	Vernon	X	X		B	X		
Railroad Lake	L3	8.0	34,45N,15W	Moniteau	X	X		B	X		
Raintree Lake	L3	248.1	06,46N,31W	Cass	X	X		A	X		
Raintree Plantation Lake	L3	115.0	29,41N,04E	Jefferson	X	X		A	X		
Ray County Community Lake	L3	23.0	13,52N,28W	Ray	X	X		A	X		
Raymond Claus Lake	L3	8.7	SE SE17,27N,11E	Stoddard	X	X		B	X		
Rice Lake East	L3	11.0	09,27N,11E	Stoddard	X	X		B	X		
Rice Lake West	L3	4.0	SENE 9,27N,11E	Stoddard	X	X		B	X		
Rinquelin Trail Community Lake	L3	27.0	NE 29,39N,11W	Maries	X	X		B	X		
Ripley Lake	L3	18.0	10,23N,01E	Ripley	X	X		A	X		
Riss Lake	L3	134.0	SW SW25,51N,33W	Platte	X	X		B	X		
Roach Lake	L3	106.0	30,57N,23W	Livingston	X	X		A	X		
Roby Lake	L3	10.0	34/35,33N,11W	Texas	X	X		A	X		
Rock House Lake	L1	62.0	NE SW 36,65N,27W	Harrison	X	X		A	X	X	
Rocky Fork Lake	L3	60.0	NW SE31,50N,12W	Boone	X	X		B	X		
Rocky Hollow Lake	L3	20.0	SE33,53N,30W	Clay	X	X		B	X		
Rothwell Lake	L3	25.0	3,53N,14W	Randolph	X	X		B	X		
Salisbury City Lake (Pine Ridge Lake)	L3	25.0	15,53N,17W	Chariton	X	X		B	X		
Santa Fe Lake	L3	29.0	5,60N,14W	Macon	X	X		A	X		
Savannah City Reservoir	L1	20.0	07,59N,35W	Andrew	X	X		A	X	X	
Sayersbrook Lake	L3	36.0	NE SE28,38N,01E	Washington	X	X		B	X		
Schell Lake	L3	371.0	6,37N,28W	St. Clair	X	X		A	X		
Schuyler Co. PWSD #1 Lake	L1	33.0	SE SE04,64N,015W	Schuyler	X	X		B	X	X	
Sears Community Lake	L3	32.0	18,63N,19W	Sullivan	X	X		A	X		

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See Tal Lake	L3	11.0	NW NW01,45N,05W	Gasconade	X	X		B	X		
Sequiota Park Lake	L3	3.0	09,28N,21W	Greene	X	X		B	X		
Settles Ford C.A. Lakes	L3	968.0	33,43N,29W;4,5,8-10,15-18,42N,29W;13,42N,30W	Bates	X	X		B	X		
Seven Springs Lake	L3	18.0	23-24,36N,06W	Phelps	X	X		A	X		
Shawnee Lake - Turner	L3	15.0	SW NW 17,34N,05W	Dent	X	X		B	X		
Shelbina Lake	L1	52.0	20,57N,10W	Shelby	X	X		B	X	X	
Shelbyville Lake	L1	32.0	SE SE19,58N,10W	Shelby	X	X		B	X	X	
Shepard Mountain Lake	L1	21.0	01,33N,03E	Iron	X	X		B	X	X	
Silver Lake	L3	54.0	SW SW16,46N,32W	Cass	X	X		B	X		
Silver Lake-Levee 3	L3	2464.0	06,55N,20W	Chariton	X	X		B	X		
Simpson Park Lake	L3	64.0	16,44N,5E	St. Louis	X	X		B	X		
Sims Valley Community Lake	L3	42.0	17,20,27N,08W	Howell	X	X		A	X		
Smithville Lake	L2	7738.0	13,53N,33W	Clay	X	X		A	X	X	
Snow Hollow Lake	L3	31.0	26/27,34N,03E	Iron	X	X		B	X		
South Lake	L3	2.0	8,48N,7W	Callaway	X	X		B	X		
South Pool-Levee 3	L3	263.0	1,2,11,12,13,55N,21W	Chariton	X	X		B	X		
Spencer Lake	L3	7.0	NW19,66N,14W	Schuylar	X	X		B	X		
Sportsman Lake	L1	7.0	NE SE,04,49N,06W	Montgomery	X	X		B	X	X	
Spring Fork Lake	L1	178.0	NE SW21,44N,21W	Pettis	X	X		B	X	X	
Spring Lake	L3	87.0	10,61N,16W	Adair	X	X		A	X		
Spring Lake	L3	5.0	33,40N,4E	Jefferson	X	X		B	X		
Squaw Creek NWR Pools	L3	1230.0	36,61N,39W	Holt	X	X		B	X		
Sterling Price Community Lake	L3	23.0	17,53N,17W	Chariton	X	X		A	X		
Stockton Lake	L2	23680.0	NE NE15,34N,26W	Cedar	X	X		A	X	X	
Strip Pit 1	L3	11.0	32,43N,25W	Henry	X	X		B	X		
Strip Pit 1	L3	7.0	9,38N,32W	Bates	X	X		B	X		
Strip Pit 2	L3	5.0	9,38N,32W	Bates	X	X		B	X		
Strip Pit 3	L3	6.0	9,38N,32W	Bates	X	X		B	X		
Strip Pit 4	L3	4.0	9,38N,32W	Bates	X	X		B	X		
Strip Pit 5	L3	6.0	4,38N,32W	Bates	X	X		B	X		
Strip Pit 6	L3	2.0	4,38N,32W	Bates	X	X		B	X		
Strobel Lake	L3	33.0	SW SW 01,27N,09E	Stoddard	X	X		B	X		
Sugar Creek Lake	L1	308.0	NE SE16,54N,14W	Randolph	X	X		B	X	X	
Sullivan City Lake	L3	5.0	NE NW 20,40N,02W	Crawford	X	X		B	X		
Summerset & Fisherman's Lakes	L3	75.0	SW15,39N,04E	Jefferson	X	X		A	X		
Sunfish Lake	L3	27.0	SUR 3097, 155, 1840, 47N,07E	St. Louis	X	X		B	X		
Sunnen Lake	L3	206.0	SW SE04,37N,01E	Washington	X	X		A	X		
Sunrise Lake	L3	21.0	36,39N,4E	Jefferson	X	X		A	X		
Sunset Lake	L3	6.0	13,44N,12W	Cole	X	X		B	X		
Sunset Lake	L3	50.2	NW SE33,39N,07E	Ste. Genevieve	X	X		B	X		
Sunshine Lake	L3	500.0	19,29,32,51N,27W	Ray	X	X		A	X	X	
Swan Lake-Levee 5	L3	1425.0	10,55N,21W	Chariton	X	X		B	X		
Table Rock Lake	L2	41747.0	SW NW22,22N,22W	Stone	X	X		A	X		
Tarsney Lake	L3	17.0	22,48N,30W	Jackson	X	X		A	X		
Tea Lake No. 1	L3	25.0	08,41N,04W	Gasconade	X	X		B	X		

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Teal Lake	L3	84.0	36,51N,9W	Audrain	X	X		B	X		
Tebo Freshwater Lake	L3	250.0	SW SW25,43N,25W	Henry	X	X		B	X		
Ten Mile Pond	L3	70.0	07,04,03,24N,16E	Mississippi	X	X		B	X		
Thirtyfour Corner Blue Hole	L3	9.0	35,25N,17E	Mississippi	X	X		B	X		
Thomas Hill Reservoir	L2	4400.0	NE SE24,55N,16W	Randolph	X	X		A	X	X	X
Tobacco Hills Lake	L3	16.0	NW11,53N,35W	Platte	X	X		B	X		
Tom Bird Blue Hole	L3	6.0	29,27N,18E	Mississippi	X	X		B	X		
Treeline Lake	L3	30.0	30,40N,16W	Camden	X	X		B	X		
Trenton Lake Lower	L1	103.0	SW 15,61N,24W	Grundy	X	X		B	X	X	
Trenton Lake Upper	L1	68.0	NE SE15,61N,24W	Grundy	X	X		B	X	X	
Tri-City Lake	L3	27.0	24,51N,12W	Boone	X	X		B	X		
Turtle Rock Lake	L3	2.0	8,48N,7W	Callaway	X	X		B	X		
Twin Borrow Pits	L3	44.0	13,20N,13E	Pemiscot	X	X		B	X		
Twin Lake	L3	49.0	NW NW31,66N,23W	Mercer	X	X		B	X		
Twin Lake Number 1	L3	1.0	8,48N,7W	Callaway	X	X		B	X		
Twin Lake Number 2	L3	1.0	8,48N,7W	Callaway	X	X		B	X		
Twin Lakes	L3	22.9	SW SW,22,48N,13W	Boone	X	X		A	X		
Union City Lake	L3	5.0	27,43N,01W	Franklin	X	X		B	X		
Unionville (Old) Lake	L1	13.0	34,66N,19W	Putnam	X	X		A	X	X	
Unionville Reservoir	L3	74.0	27,66N,19W	Putnam	X	X		B	X		
Unity Lake Number One	L1	19.0	25,48N,32W	Jackson	X	X		B	X	X	
Unity Lake Number Two	L1	26.0	24,48N,32W	Jackson	X	X		B	X	X	
Unnamed Lake	L3	1.0	16,45N,32W	Cass	X	X		B	X		
Unnamed Lake	L3	6.0	18,47N,31W	Jackson	X	X		B	X		
Unnamed Lake	L3	8.0	15,42N,4W	Franklin	X	X		B	X		
Unnamed Lake	L3	2.0	2,47N,32W	Jackson	X	X		B	X		
Unnamed Lake	L3	6.0	10,38N,32W	Bates	X	X		B	X		
Unnamed Lake	L3	37.4	21,39N,5E	Jefferson	X	X		B	X		
Valle Lake	L3	42.0	31,39N,05E	Jefferson	X	X		A	X		
Van Meter St. Park Lake	L3	8.0	24,52N,22W	Saline	X	X		A	X		
Vandalia Community Lake	L3	35.0	SE35,52N,06W	Audrain	X	X		B	X		
Vandalia Reservoir	L1	28.0	NE NE12,53N,05W	Pike	X	X		B	X	X	
Wahoo Lake	L3	10.0	14,38N,04E	St. Francois	X	X		B	X		
Wakonda Lake	L3	78.0	13,14,60N,06W	Lewis	X	X		A	X		
Walt Disney Lake	L3	19.0	31,57N,18W	Linn	X	X		A	X		
Watkins Mill Lake	L3	87.0	NW 22,53N,30W	Clay	X	X		A	X		
Waukomis Lake	L3	76.0	SW 17,51N,33W	Platte	X	X		A	X		
Weatherby Lake	L3	185.0	SW SE15,51N,34W	Platte	X	X		A	X		
Welch Lake	L3	7.0	2,48N,12W	Boone	X	X		B	X		
Wellsville City Lake	L1	12.0	NW SE 33,50N,06W	Montgomery	X	X		A	X	X	
West Arrowhead Lake	L3	58.0	18,23N,08W	Howell	X	X	X	B	X		
Whispering Valley Lakes	L3	30.0	35,44N,03W	Franklin	X	X		A	X		
Whiteside Lake	L3	23.0	Landgrant01686	Lincoln	X	X		B	X		
Wildwood Lake	L3	17.0	NE 09,48N,32W	Jackson	X	X		B	X		
Willow Brook Lake	L1	53.0	SE NE 04,58N,13W	DeKalb	X	X		B	X	X	
Willow Lake	L3	29.0	27-34,34N,32W	Vernon	X	X		B	X		

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Willowood Lake	L3	45.0	26 & 35,48N,05E	St. Charles	X	X		B	X		
Windsor Ferrington Park Lake	L3	16.0	6,43N,23W	Pettis	X	X		B	X		
Windy Lake	L3	13.0	6,48N,7W	Callaway	X	X		B	X		
Winegar Lake	L3	8.0	18,43N,13W	Cole	X	X		B	X		
Wing Lake	L3	19.9	NW SW 14, 35N,03E	Washington	X	X		A	X		
Wolf Bayou Mud Bayou	L3	37.0	04,19N,13E	Pemiscot	X	X		B	X		
Wood Lake	L3	8.0	8,57N,12W	Shelby	X	X		B	X		
Worth County Community Lake	L3	17.0	32,65N,32W	Worth	X	X		B	X		
Wyaconda Lake	L1	9.0	NW NW33,65N,09W	Clark	X	X		B	X	X	

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