

US Army Corps of Engineers
Kansas City District

Tuttle Creek Dam Failure Warning System



Evacuation Guidance and Maps

November 2007



NOTE: When lake level is above normal, evacuation zone extends south and west of Manhattan into Hunter's Island and Fairmont Park areas. Occupants should attend to evacuate pending announcements.

These areas will have more advance warning and shallower water depths than floodplains of Big Blue River. However, occupants should be prepared to evacuate.

Additional Information

For more information about the Tuttle Creek Dam Failure Warning System, see our web site at:

www.nwk.usace.army.mil/projects/tcdam/index.htm

or call:

Bill Empson, Project Manager, U.S. Army Corps of Engineers,
Kansas City District at 816-389-3556;
or Brian McNulty, Operations Manager, U.S. Army Corps of Engineers,
Kansas City District at 785-539-8511;

or send an email to:

William.B.Empson@usace.army.mil

What Evacuation Means for You

There is a remote chance that the Manhattan, KS, area could experience a moderate to strong earthquake that could lead to failure of the Tuttle Creek Dam and flooding of the downstream area. To address this situation, the U.S. Army Corps of Engineers, Kansas City District has constructed a Dam Failure Warning System to protect the community in areas immediately downstream of the dam (between the dam and the Kansas River). This area covers portions of Riley and Pottawatomie counties including the eastern and downtown portions of the City of Manhattan. The warning system is a temporary measure while the Corps of Engineers strengthens Tuttle Creek Dam so that it can withstand a moderate to strong earthquake.

The warning system includes six warning sirens at the locations shown on the evacuation zone map (Figure 1). If an earthquake threatens the stability of the dam, the sirens will broadcast an evacuation tone and voice message instructing downstream residents and businesses to evacuate immediately. The evacuation tone will be different than the tone used for tornado warnings.

How can I prepare?

1. Determine if you are located in the evacuation zone. Study the evacuation zone map (Figure 1) to see if your home, school, workplace, or other frequently visited locations are within the evacuation zone.
2. Study the individual subzone maps in this booklet to identify the evacuation routes from your home, workplace or school. Select the gathering places outside the evacuation zone (as shown on the maps) and the routes that you would use to reach them. Review this information with each family member.
3. Find out if your child's school is affected. The public and parochial schools have identified evacuation routes and gathering places for their individual schools. (Preferred gathering places for schools are shown on the subzone maps.) The school district personnel will be responsible for taking your children to these gathering places. Contact your child's school for further information.
4. If you need special assistance in evacuating, make arrangements with others before an emergency. Do not count on emergency personnel for this service since they will be not be able to answer all calls for help.
5. Be aware of the dam failure hazard if you're a visitor. Check with the store, business, hotel, motel or campground for evacuation information.
6. Keep this booklet handy. Review it periodically with your family members. Be prepared.

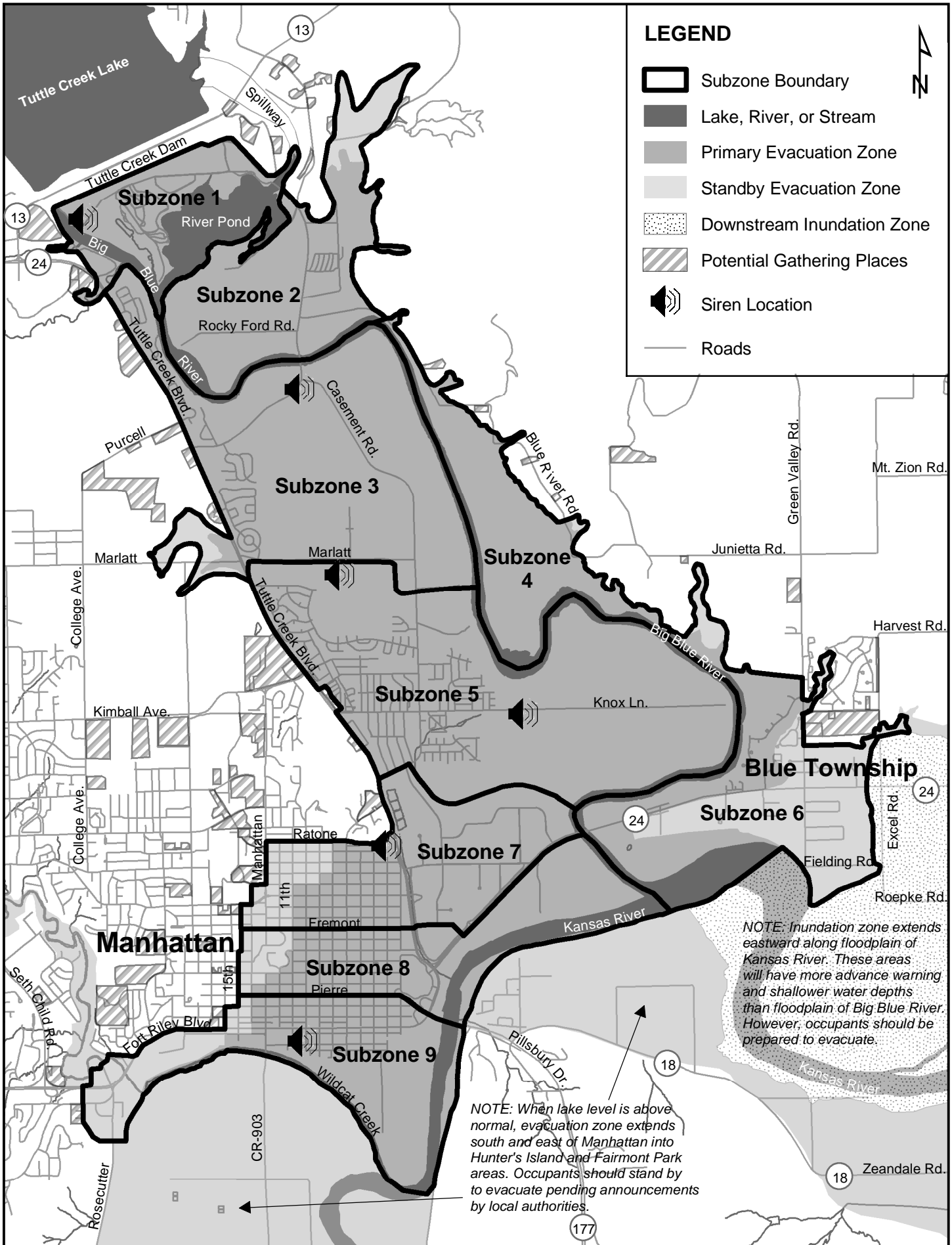
Take immediate action if you feel an earthquake and hear the warning sirens.

1. **Stay informed.** If an earthquake strong enough to trigger the Dam Failure Warning System occurs, the shaking will be strong enough to make it difficult to move around until it stops. After the shaking stops, tune into a local radio or television station and listen for the sirens. If the earthquake damages the dam, the sirens may be activated soon after the earthquake, or they may not be activated until several hours after the earthquake. When the sirens are activated, you will hear a voice message along with the evacuation warning tone. If the earthquake does not significantly damage the dam, the sirens will not be activated at all.
2. **Evacuate by foot.** If an evacuation is required, walk to one of the gathering places close to your evacuation subzone. In most cases, you will only have to walk a mile or less. Don't attempt to drive your vehicle because roads may become congested or impassable after the earthquake. There will most likely be a period of up to two hours to evacuate by foot once the sirens have sounded.
3. **Avoid hazards when you evacuate.** Stay away from downed power lines and watch for objects falling from damaged buildings (chimneys, bricks, etc.).
4. **Help others.** Help people who require special assistance—infants, elderly people, and individuals with disabilities.

What do I do if I hear the siren but do not feel an earthquake?

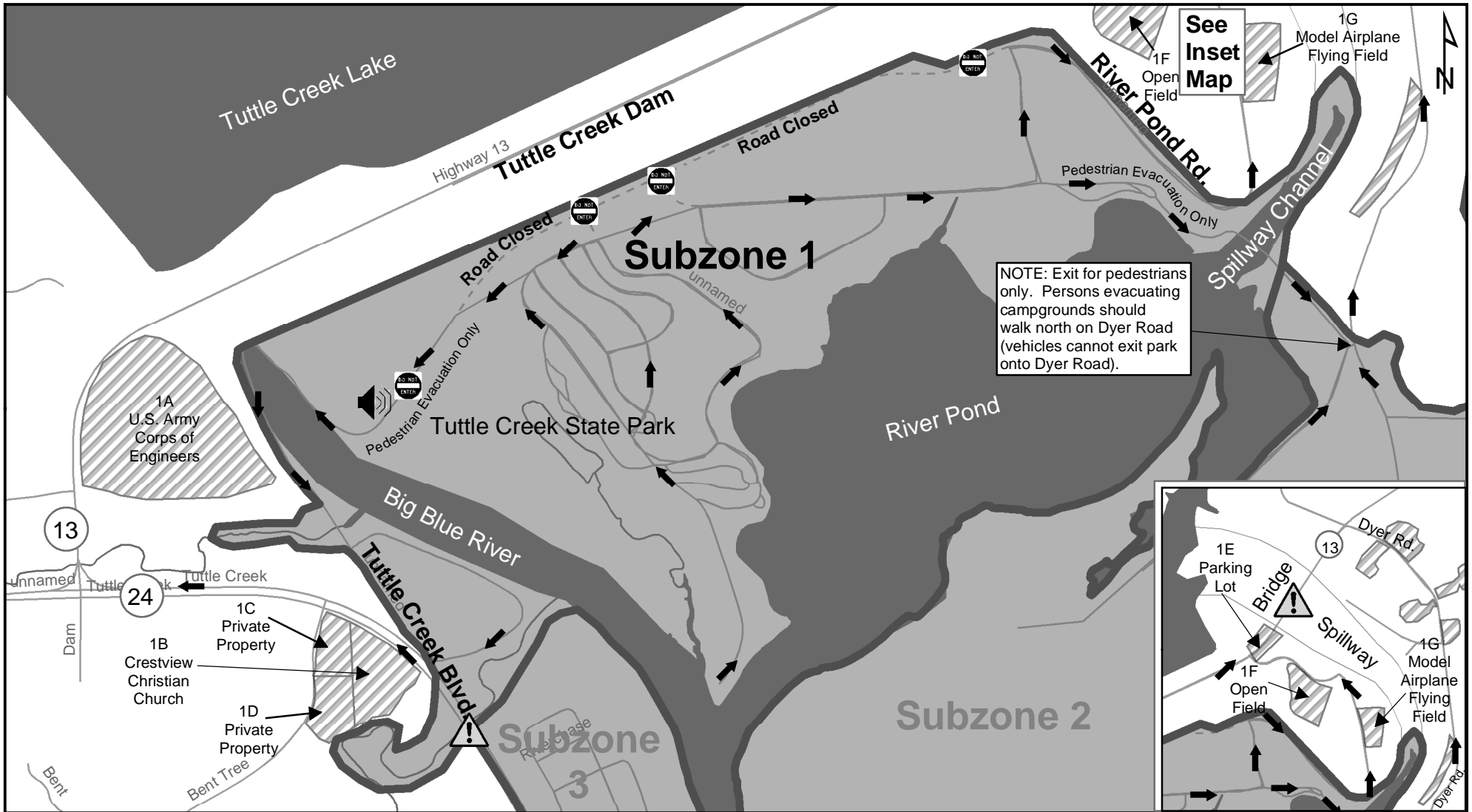
If the sirens sound and you have not felt an earthquake, tune into local radio and/or television stations for further information and listen for voice messages through the sirens.

Figure 1. Evacuation Zone Map



NOTE: Inundation zone extends eastward along floodplain of Kansas River. These areas will have more advance warning and shallower water depths than floodplain of Big Blue River. However, occupants should be prepared to evacuate.

NOTE: When lake level is above normal, evacuation zone extends south and east of Manhattan into Hunter's Island and Fairmont Park areas. Occupants should stand by to evacuate pending announcements by local authorities.



Riley County Emergency Management: 785-537-6333

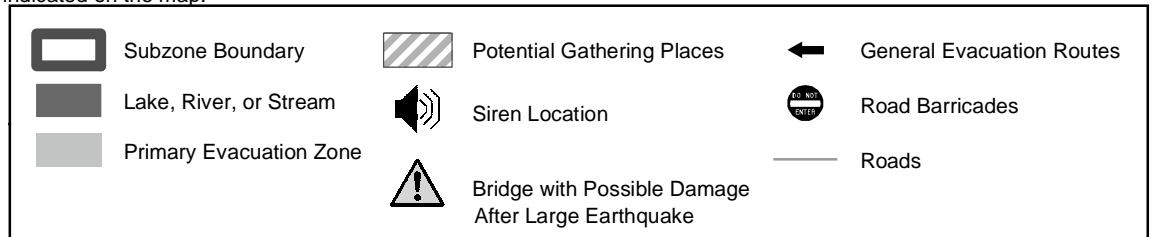
Pottawatomie County Emergency Management: 785-457-3358

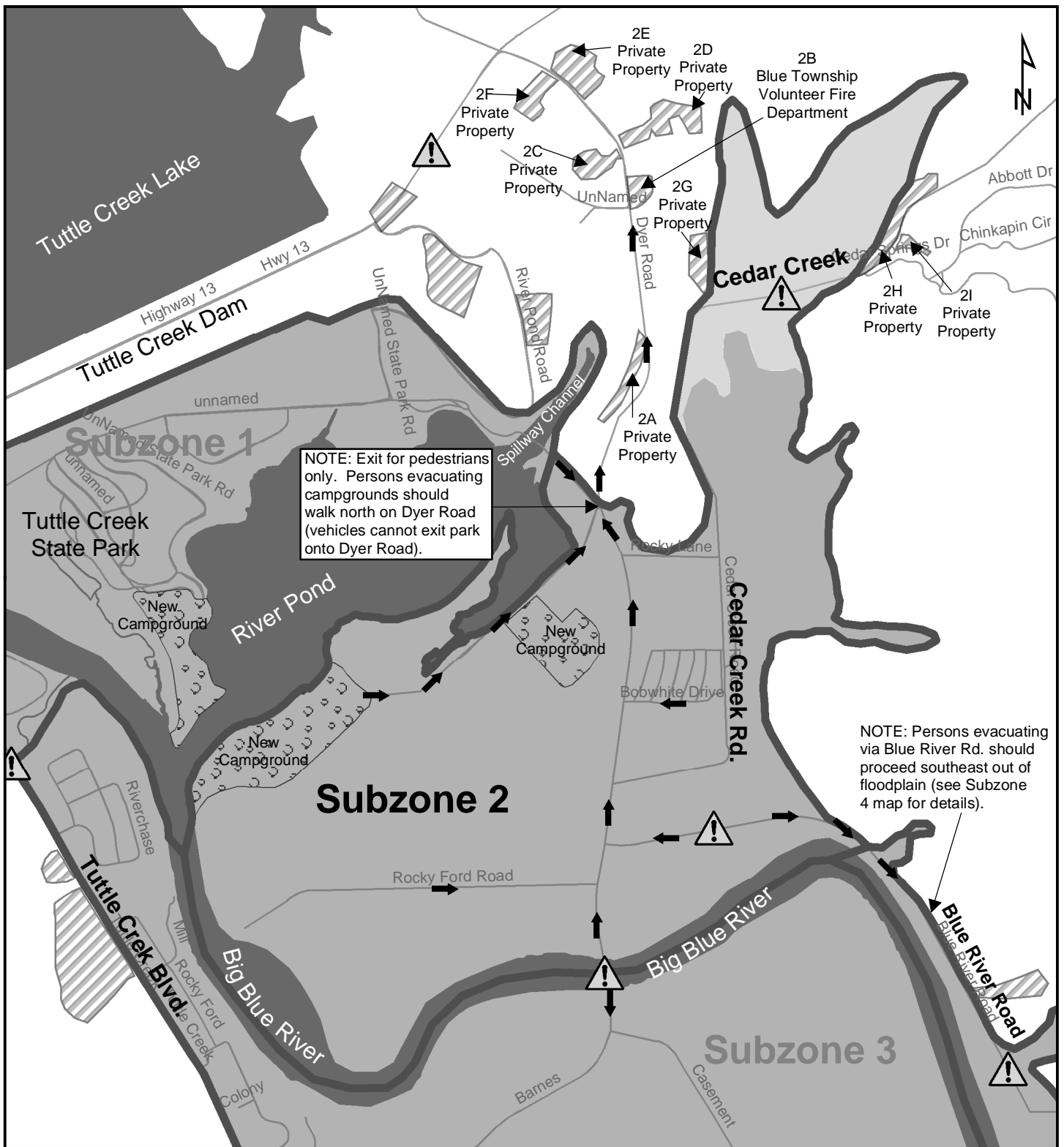
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Evacuation Plan - Subzone 1

Subzone 1 - Bounded by River Pond Rd. and the Tuttle Creek Dam on the north; the River Pond on the south; River Pond Rd. on the east; and Tuttle Creek Blvd. on the west. If an evacuation warning is sounded by the sirens, walk to the nearest gathering place using the evacuation routes indicated on the map.

- Potential Gathering Places**
- 1A. U.S. Army Corps of Engineers
 - 1B. Crestview Christian Church (4761 Tuttle Creek Blvd.)
 - 1C. Private Property
 - 1D. Private Property
 - 1E. Parking Lot (adjacent to spillway bridge)
 - 1F. Open Field
 - 1G. Model Airplane Flying Field





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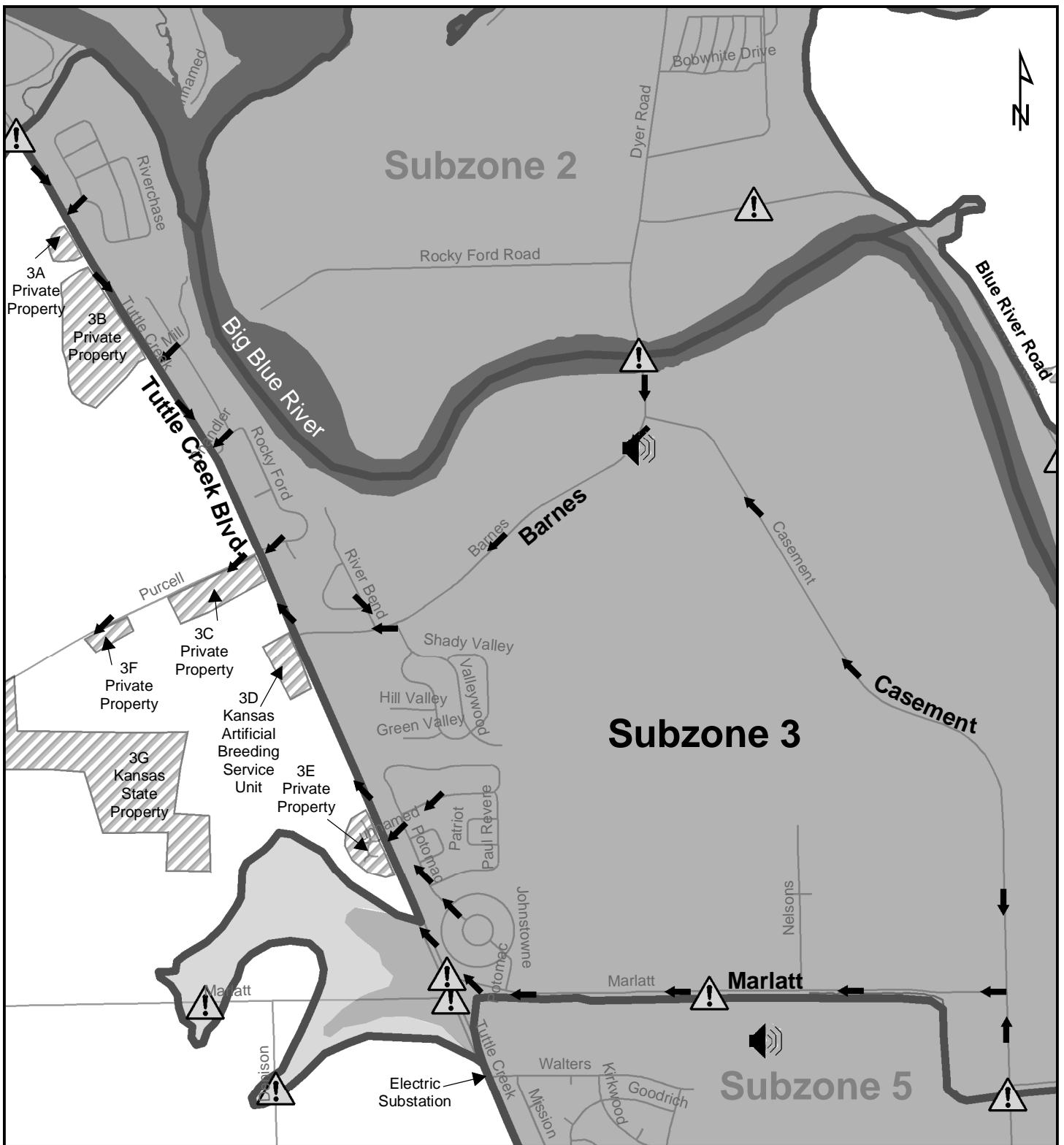
Evacuation Plan - Subzone 2

Subzone 2 - Bounded by the River Pond on the north; the Big Blue River on the south and west; and Cedar Creek Rd. on the east. If an evacuation warning is sounded by the sirens, walk to the nearest gathering place using the evacuation routes indicated on the map.

- Potential Gathering Places**
- 2A. Private Property (West side of Dyer Rd.)
 - 2B. Blue Township Vol. Fire Dept. (7191 Dyer Rd.)
 - 2C. Private Property (Southwest of Dyer Rd.)
 - 2D. Private Property (Northeast of Dyer Rd.)
 - 2E. Private Property (Northeast of Dyer Rd.)
 - 2F. Private Property (Southwest of Dyer Rd.)
 - 2G. Private Property (North of Cedar Creek Rd.)
 - 2H. Private Property (Northwest of Cedar Creek Rd.)
 - 2I. Private Property (South of Cedar Creek Rd.)

*When the lake level is above normal, the inundation area extends into the standby zone. Occupants should be prepared to evacuate pending announcement by local authorities.

	Subzone Boundary		Potential Gathering Places
	Lake, River, or Stream		Bridge with Possible Damage After Large Earthquake
	Primary Evacuation Zone		General Evacuation Routes
	Standby Evacuation Zone*		Roads



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




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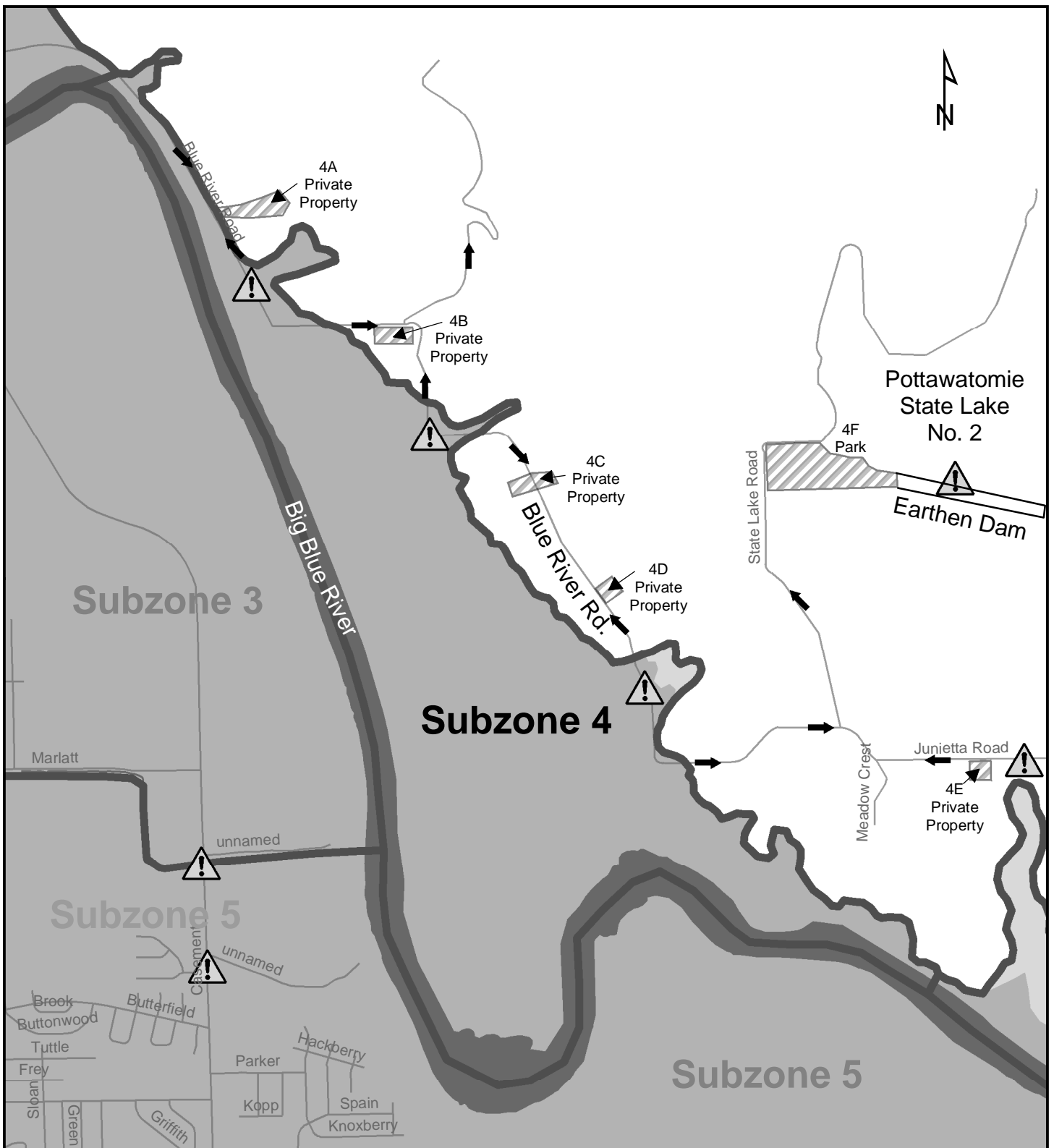
Evacuation Plan - Subzone 3

Subzone 3 - Bounded by the Big Blue River on the north and east; Marlatt on the south; and Tuttle Creek Blvd. on the west. If an evacuation warning is sounded by the sirens, walk to the nearest gathering place using the evacuation routes indicated on the map.

- Potential Gathering Places**
- 3A. Private Property (West of Tuttle Creek Blvd.)
 - 3B. Private Property (West of Tuttle Creek Blvd.)
 - 3C. Private Property (Southeast of Purcell Rd.)
 - 3D. Kansas Artificial Breeding Service Unit (3171 Tuttle Creek Blvd.)
 - 3E. Private Property (Little Ponderosa Rd. off Tuttle Creek Blvd.)
 - 3F. Private Property (Southeast of Purcell Rd.)
 - 3G. Kansas State Property (South of Purcell Rd.)

	Subzone Boundary		Siren Location
	Lake, River, or Stream		Bridge with Possible Damage After Large Earthquake
	Primary Evacuation Zone		General Evacuation Routes
	Standby Evacuation Zone*		Roads
	Potential Gathering Places		

*When the lake level is above normal, the inundation area extends into the standby zone. Occupants should be prepared to evacuate pending announcement by local authorities.



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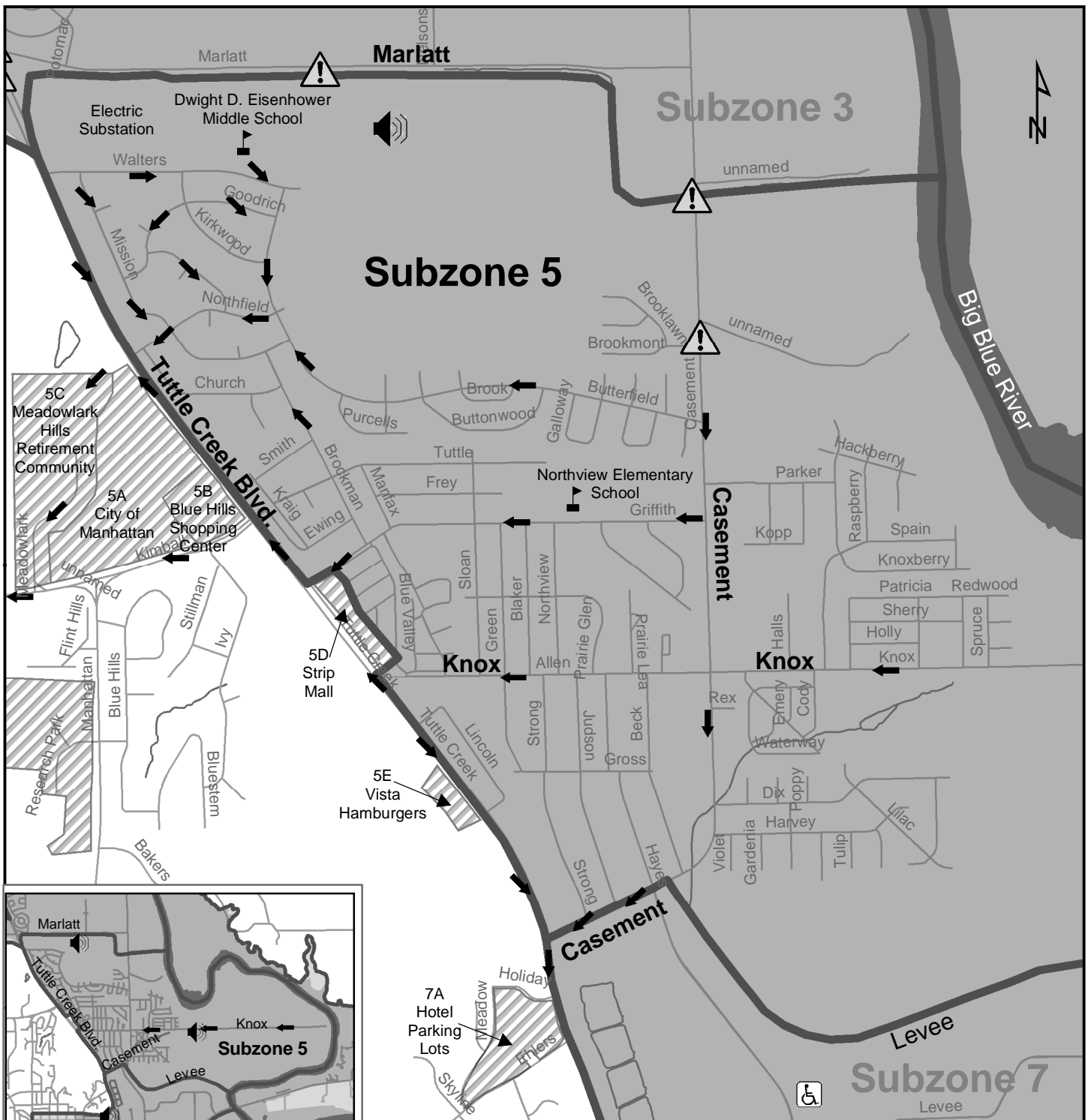
Evacuation Plan - Subzone 4

Subzone 5 - Bounded by the Big Blue River on the south and west; and Big River Rd. on the east. If an evacuation warning is sounded by the sirens, walk to the nearest gathering place using the evacuation routes indicated on the map.

Potential Gathering Places

- 4A. Private Property on east side of Blue River Road
- 4B. Private Property on east side of Blue River Road
- 4C. Private Property on east side of Blue River Road
- 4D. Private Property on east side of Blue River Road
- 4E. Private Property on south side of Junietta Road
- 4F. Park (At Pottawatomie State Fishing Lake No. 2 on State Lake Rd. off of Junietta Rd.)

	Subzone Boundary		Bridge with Possible Damage After Large Earthquake
	Lake, River, or Stream		General Evacuation Routes
	Primary Evacuation Zone		Roads
	Potential Gathering Places		



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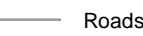
Evacuation Plan - Subzone 5

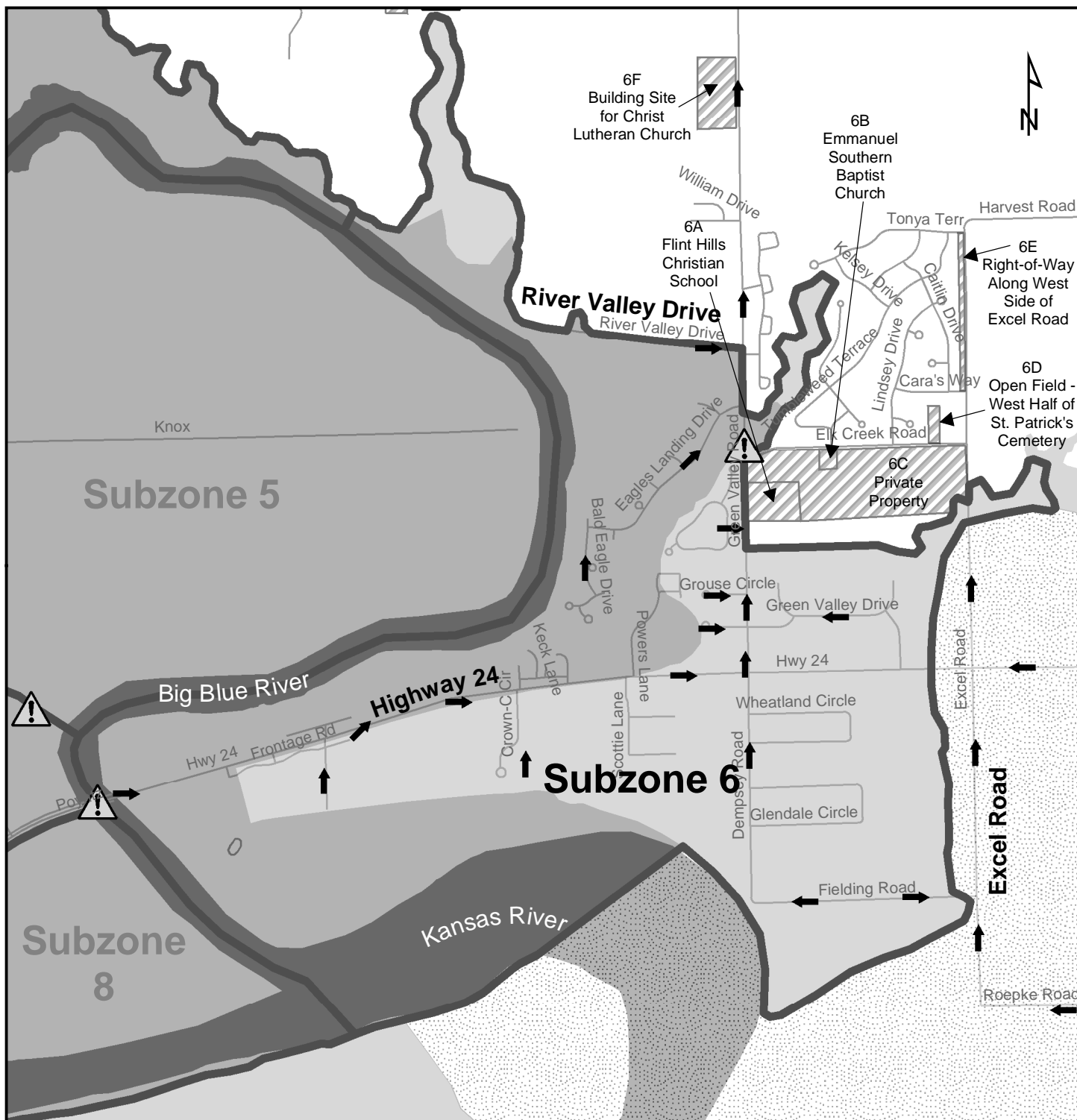
Subzone 5 - Bounded by Marlatt on the north; Casement Rd. and the levee on the south; the Big Blue River on the east; and Tuttle Creek Blvd. on the west. If an evacuation warning is sounded by the sirens, walk to the nearest gathering place using the evacuation routes indicated on the map.

- Potential Gathering Places**
- 5A. City of Manhattan Property (2240 Meadowlark Rd.)
 - 5B. Blue Hills Shopping Center Parking Lot (2303 Tuttle Creek Blvd.)
 - 5C. Meadowlark Hills Retirement Community (2121 Meadowlark Rd.)
 - 5D. Strip Mall Parking Lot (2000 Tuttle Creek Blvd.)
 - 5E. Vista Hamburgers (1911 Tuttle Creek Blvd.)
 - 7A. Econo-Lodge (1501 Tuttle Creek Blvd.) and Regency Inn (419 Holiday Dr.) Parking Lots

Destinations for School Children

Northview Elementary School will evacuate to the Blue Hills Shopping Center gathering place (5B).
 Dwight D. Eisenhower Middle School will evacuate to Meadowlark Hills Retirement Center (5C).

	Subzone Boundary		School Location
	Lake, River, or Stream		Siren Location
	Primary Evacuation Zone		Bridge with Possible Damage After Large Earthquake
	Potential Gathering Places		General Evacuation Routes
	Group Facility with Persons Requiring Assistance		Roads



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Evacuation Plan - Subzone 6

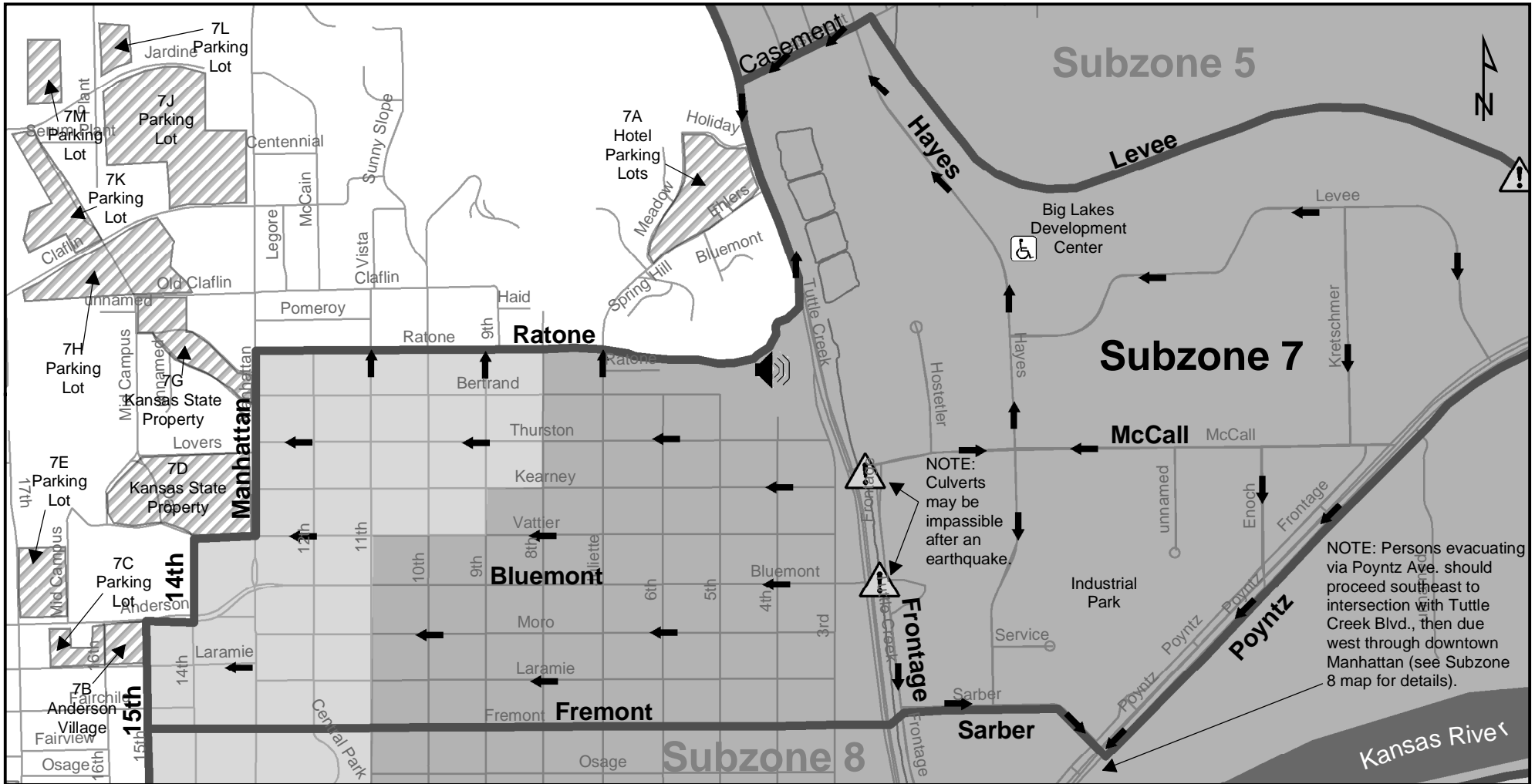
Subzone 6 - Bounded by River Valley Drive on the north; the Kansas River on the south; Excel Road on the east; and the Big Blue River on the west. If an evacuation warning is sounded by the sirens, walk to the nearest gathering place using the evacuation routes indicated on the map.

- Potential Gathering Places**
- 6A. Flint Hills Christian School (3905 Green Valley Rd.)
 - 6B. Emmanuel Southern Baptist Church (8950 Elk Creek Rd.)
 - 6C. Private Property (South Side of Elk Creek Rd.)
 - 6D. Open Field - West Half of St. Patrick's Cemetery (Elk Creek & Excel Rd.)
 - 6E. Right-of-Way Along West Side of Excel Road (Between Cara's Way & Tonya Terrace)
 - 6F. Building Site for Christ Lutheran Church (West Side of Green Valley Rd.)

	Subzone Boundary		Potential Gathering Places
	Lake, River, or Stream		Bridge with Possible Damage After Large Earthquake
	Primary Evacuation Zone		General Evacuation Routes
	Standby Evacuation Zone*		Roads
	Downstream Inundation Zone**		

* When the lake level is above normal, the inundation area extends into the standby zone. Occupants should be prepared to evacuate pending announcement by local authorities.

**This area is within the downstream inundation zone; it will have more advanced warning and shallower water depths than the floodplain of the Big Blue River. However, occupants should plan to evacuate.



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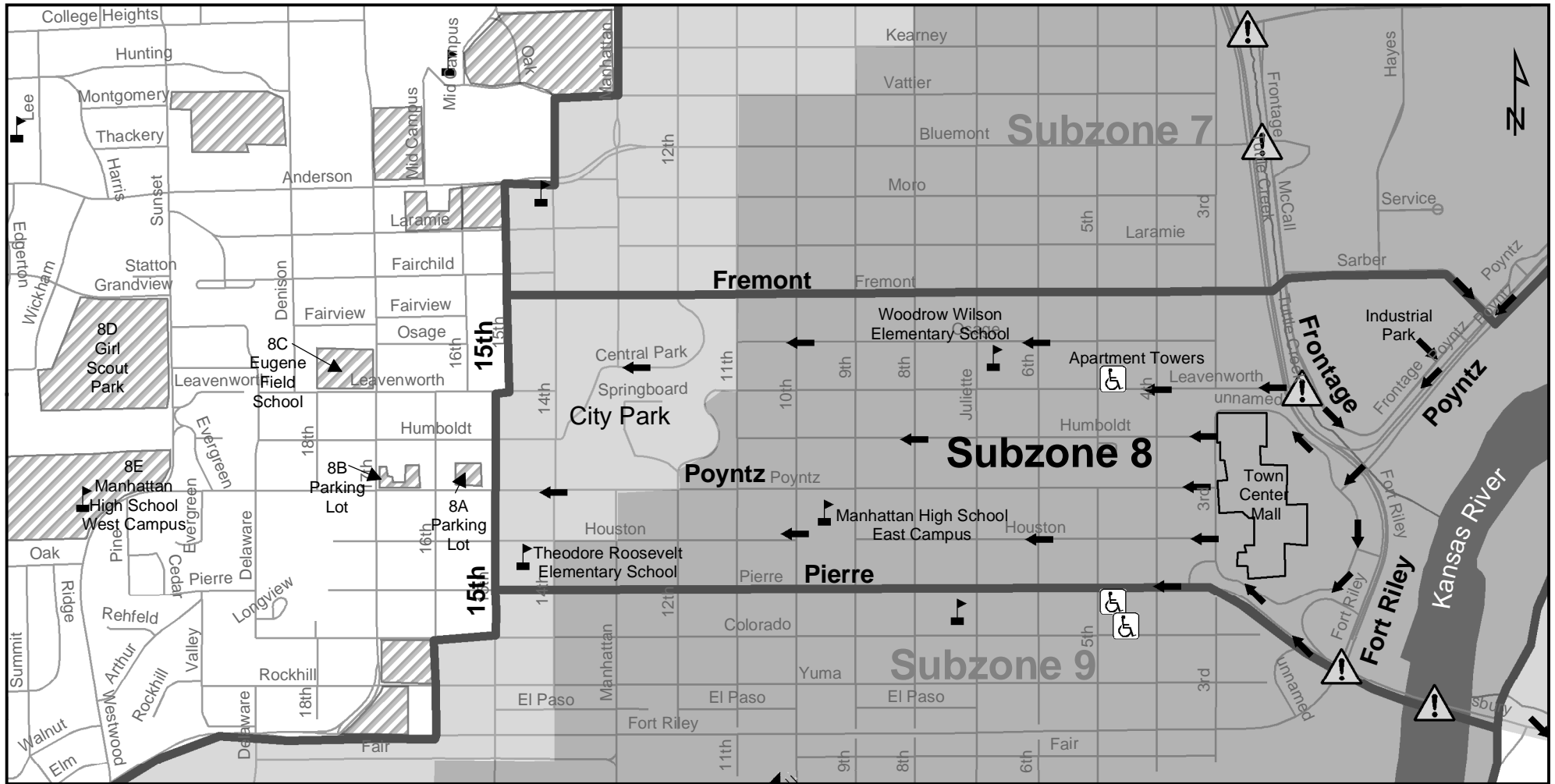
Evacuation Plan - Subzone 7

Subzone 7 - Bounded by Ratone on the north; Fremont on the south; Poyntz on the east; and Manhattan, 14th Street, and 15th Street on the west. If an evacuation warning is sounded by the sirens, walk to the nearest gathering place using the evacuation routes indicated on the map.

- Potential Gathering Places**
- 7A. Econo-Lodge (1501 Tuttle Creek Blvd.) and Regency Inn (419 Holiday Dr.) Parking Lots
 - 7B. Anderson Village (1431 Anderson Ave.)
 - 7C. Ramada Plaza Hotel Parking Lot (1641 Anderson Ave.)
 - 7D. Kansas State Property (Manhattan & Vattier)
 - 7E. Kansas State Lots A29 and A30 (Anderson & Mid-Campus Dr.)
 - 7G. Kansas State Property (Manhattan & Petticoat Ln.)
 - 7H. Kansas State Lots A17 and A18 (Old Claflin & Mid-Campus Dr.)
 - 7J. Kansas State Lots B1, B2, B3, B16, and B17 (Manhattan & Claflin Rd.)
 - 7K. Kansas State Lots B11 and B13 (Claflin & Mid-Campus Dr.)
 - 7L. Kansas State Lot B18 (Jardine & Plant)
 - 7M. Kansas State Lots B5N and B5S (North of Jardine)

	Subzone Boundary		Potential Gathering Places		Bridge with Possible Damage After Large Earthquake
	Lake, River, or Stream		Group Facility with Persons Requiring Assistance		General Evacuation Routes
	Primary Evacuation Zone		Siren Location		Roads
	Standby Evacuation Zone*				

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Evacuation Plan - Subzone 8

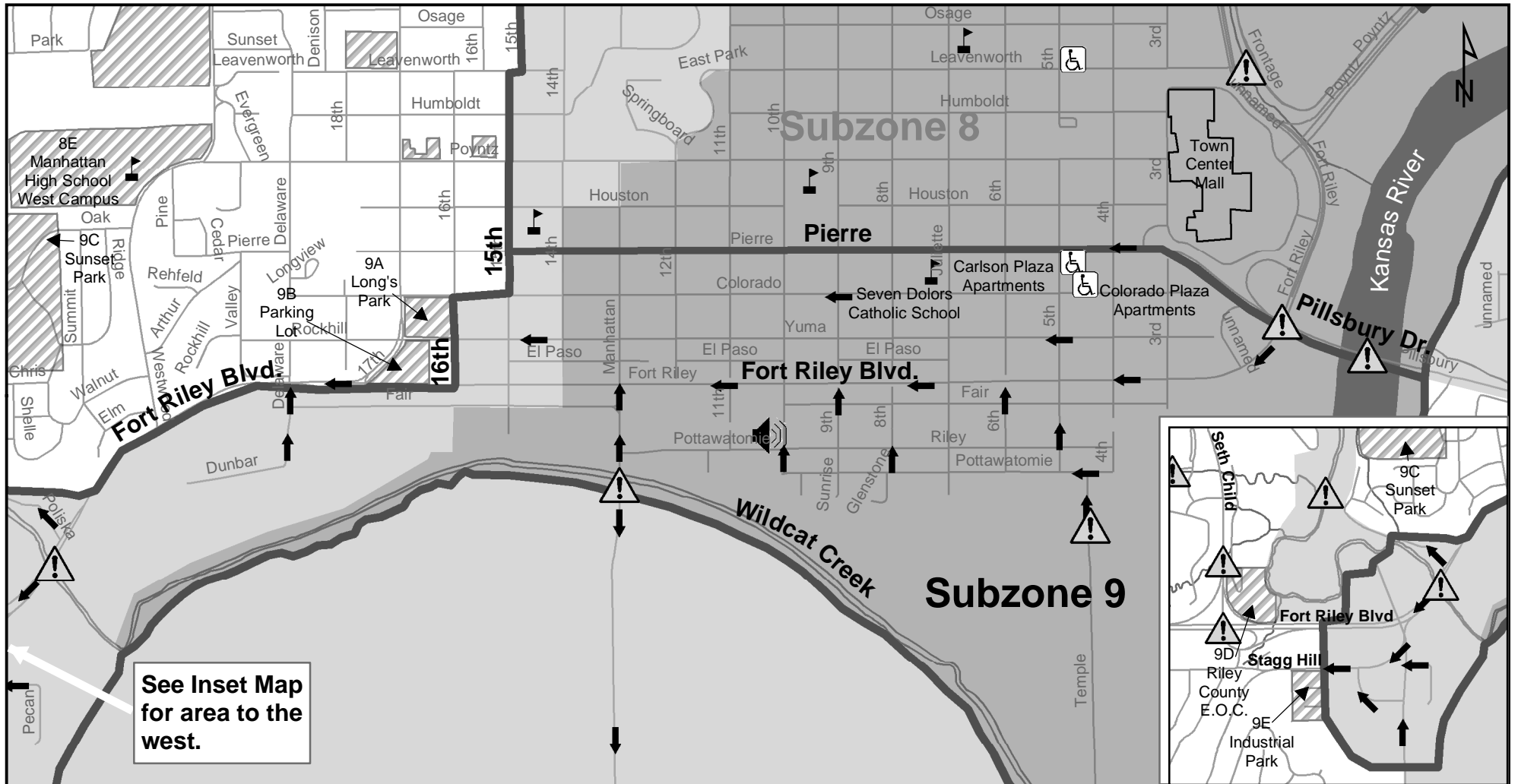
Subzone 8 - Bounded by Fremont on the north; Pierre on the south; the Big Blue River and the Kansas River on the east; and 15th Street on the west. If an evacuation warning is sounded by the sirens, walk to the nearest gathering place using the evacuation routes indicated on the map.

- Potential Gathering Places**
- 8A. Manhattan Arts Center Parking Lot (1520 Poyntz Ave.)
 - 8B. Yorgensen-Meloan-Londeen Funeral Home Parking Lot (1616 Poyntz Ave.)
 - 8C. Eugene Field School (1700 Leavenworth St.)
 - 8D. Girl Scout Park (Sunset Ave. & Grandview Dr.)
 - 8E. Manhattan High School West Campus (2100 Poyntz Ave.)

Destinations for School Children The two elementary schools and one high school in subzone 8 will evacuate to the Manhattan High School West Campus gathering place (8E).

	Subzone Boundary		Potential Gathering Places		Bridge with Possible Damage After Large Earthquake
	Lake, River, and Stream		Group Facility with Persons Requiring Assistance		General Evacuation Routes
	Primary Evacuation Zone		School Location		Roads
	Standby Evacuation Zone*		Siren Location		

*When the lake level is above normal, the inundation area extends into the standby zone. Occupants should be prepared to evacuate pending announcement by local authorities.



See Inset Map for area to the west.

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Evacuation Plan - Subzone 9

Subzone 9 - Bounded by Pierre on the north; Wildcat Creek on the south; the Big Blue River on the east; and 16th Street and Fort Riley Blvd. on the west. If an evacuation warning is sounded by the sirens, walk to the nearest gathering place using the evacuation routes indicated on the map.

- Potential Gathering Places**
- 9A. Long's Park (Southeast corner of 17th & Colorado)
 - 9B. Parking Lot (Fort Riley Blvd. & 17th)
 - 9C. Sunset Park (North of Chris Rd.)
 - 9D. Riley County E.O.C. (1001 S. Seth Child Rd.)
 - 9E. Industrial Park (2501-2513 Stagg Hill Rd.)

Destinations for School Children Seven Dolors Catholic School in subzone 9 will evacuate to the Manhattan High School West Campus gathering place (8E).

	Subzone Boundary		Potential Gathering Places		Bridge with Possible Damage After Large Earthquake
	Lakes and Rivers		Group Facility with Persons Requiring Assistance		General Evacuation Routes
	Primary Evacuation Zone		School Location		Roads
	Standby Evacuation Zone*		Siren Location		

*When the lake level is above normal, the inundation area extends into the standby zone. Occupants should be prepared to evacuate pending announcement by local authorities.