

**County of Jackson
120 W. Michigan Ave.
Jackson, MI 49201
(517) 788-4335**



BOARD OF COMMISSIONERS

**Clifford E. Herl, District 1
David F. Lutchka, District 2
Carl Rice, Jr., District 3
Philip S. Duckham III, District 4
Julie Alexander, District 5
James C. Videto, District 6
James E. Shotwell, Jr., District 7
Gail W. Mahoney, District 8
Jonathan T. Williams, District 9
Patricia A. Smith, District 10
Michael J. Way, District 11
David K. Elwell, District 12**

ELECTED OFFICIALS

**Amanda Riska, Clerk
Steven Rand, Sheriff
Mindy Reilly, Register of Deeds
Karen Coffman, Treasurer
Geoffrey Snyder, Drain Commissioner
Hank Zavislak, Prosecuting Attorney**

COUNTY STAFF

**Michael Overton, Administrator/Controller
Adam Brown, Deputy Administrator
Charles Adkins, Circuit Court Administrator
Tammy Bates, District Court Administrator
Andy Crisenbery, Friend of the Court
Gerard Cyrocki, Finance Officer
Connie Frey, IT Director
Brandon Ransom, Parks Director
Teresa Hawkins, Youth Center Director
TBD, Equalization Director
Crystal Dixon, Human Resources Director
Dr. John Maino, Medical Director
Kent Maurer, Airport Manager
Ric Scheele, Director-Fleet & Facilities Opns.
Matt Shane, MSU Ext.-District Coordinator
Marce Wandell, Department on Aging Director
Dave Welihan, Veterans Affairs Officer
Ted Westmeier, Health Officer**

County Commission Agenda December 13, 2011

Order of Business:

1. Call to Order
2. Invocation
3. Pledge of Allegiance
4. Roll Call
5. Approval of Agenda
6. Awards and Recognitions
7. Communications and Petitions
8. Special Orders/Public Hearing(s)
9. Public Comment
10. Special Meetings of Standing Committees
11. Minutes
12. Consent Agenda
13. Standing Committees
 - A. Policy
 - B. County Affairs & Agencies
 - C. Human Services
 - D. Personnel & Finance
14. Unfinished Business
15. New Business
16. Public Comment
17. Commissioner Comment
18. Closed Session
19. Adjournment

Public Comment

Any person desiring to speak on a matter to the Board of Commissioners may do so under the Public Comment items near the beginning and end of the meeting. Please state your name and use the microphone. Please note that the Commission allocates a maximum of five minutes per individual at the beginning of the meeting and three minutes per individual at the end of the meeting for this purpose.

Consent Agenda

Items on the Consent Agenda are items generally routine in nature that have passed a Standing Committee and will be enacted by one motion and one vote. There will be no separate discussion on these items. Any Commissioner may remove an item from the Consent Agenda and it will be considered by separate motion at the proper place during the meeting.

Standing Committees

The Board of Commissioners operates under a Standing Committee system with the following Committees: Policy, County Affairs & Agencies, Human Services, Personnel & Finance. All departments of the County coordinate their business through one of the Standing Committees. The Committees then forward their recommendations to the Board of Commissioners.

Closed Session

The Board of Commissioners is permitted under the Open Meetings Act to go into Closed Session to discuss labor contracts, purchase of property, and certain employee matters if requested by the employee. A two-thirds vote of the Commission is required to go into Closed Session.

"Your interest in your County Government is appreciated"

AGENDA
JACKSON COUNTY BOARD OF COMMISSIONERS BOARD MEETING
December 13, 2011
5:00 p.m.
County Commission Chambers

***Mission Statement:** Jackson County Government, in cooperation with the community
and local governmental units, strives through a planned process
to deliver quality services that address public needs.*

1. **CALL TO ORDER** – *by Chairman Steve Shotwell*
2. **INVOCATION** – *by Commissioner Carl Rice, Jr.*
3. **PLEDGE OF ALLEGIANCE** – *by Chairman Steve Shotwell*
4. **ROLL CALL** – *County Clerk Amanda Riska*
5. **APPROVAL OF AGENDA**
6. **AWARDS & RECOGNITIONS** – None.
7. **COMMUNICATIONS/PETITIONS** – None.
8. **SPECIAL ORDERS/PUBLIC HEARINGS** – None.
9. **PUBLIC COMMENTS**
10. **SPECIAL MEETINGS OF STANDING COMMITTEES**
11. **MINUTES** - Minutes of the 11/15/11 Regular Meeting of the Jackson County Board of Commissioners

Attachments:

*11/15/11 Regular Meeting Minutes

12. **CONSENT AGENDA** (*Roll Call*)

A. County Policy

1. **Revised – Purchasing Policy 2035 – Administration of Public Improvement Projects by the Designated County Agency**

Attachments:

*Purchasing Policy 2035

2. **Reviewed - Board Rule 4060 – Voting**

Attachments:

*Board Rule 4060 - Voting

B. County Affairs & Agencies

3. Accept Donation of Fokker DR-1 Scale Model Tri-Plane from Bob Lazebnik for the Aviation Heritage Park

Attachments:

*Memo from Airport Manager

4. Court Appointed Services Contracts

Attachments:

*Memo from Deputy Administrator

*Court Appointed Services Contracts:

- Andrew Kirkpatrick
- Wendell E. Jacobs, Jr.
- Alfred P. Brandt
- George D. Lyons
- Bruce Clark

5. Approve the Resource Recovery Facility (RRF) 2012 Enterprise Fund Budget

Attachments:

*Resource Recovery Facility (RRF) 2012 Enterprise Fund Budget

6. Resolution (12-11.42) Adopting the Jackson County Hazard Mitigation Plan

Attachments:

*Resolution (12-11.42)

*Memo from Region 2 Planning Commission Principal Planner

*Executive Summary

*Hazard Mitigation Plan

C. Human Services

**2nd Reading
& Adoption**

7. Approval of Updated Car Seat Program Fee Schedule for FY 2012

Attachments:

*Memo from Director of Health Education/Health Promotion

*Current Fee Schedule

*Proposed Fee Schedule

8. DEQ Local Health Department Grant Contract

Attachments:

*DEQ Memo regarding Local Health Department Grant Contract

*Grant Contract

9. Resolution (12-11.43) Jackson County's Commitment to a Solid Educational Foundation

Attachments:

*Memo from Deputy Administrator

*Resolution (12-11.43)

D. Personnel & Finance

10. Resolution (12-11.41) Authorizing Adoption of the Jackson County Deferred Compensation Plan Restatement

Attachments:

*Resolution (12-11.41)

*Adoption Agreement Section 457(b) Deferred Compensation Plan

11. Non-Union Market Adjustment for 2012

Attachments:

*Memo from Administrator/Controller

12. Exception to Non-Union Handbook

Attachments:

*Memo from Administrator/Controller

13. Appropriation of Year-End Savings

Attachments:

*Memo from Administrator/Controller

14. Budget Adjustments

- **Airport**
- **Department on Aging**
- **Parks**
- **General Fund Budget Adjustments**

Attachments:

*Memo from Airport Manager and budget adjustment

*Department on Aging Budget Adjustment

*Parks Budget Adjustment

*Memo from Finance Officer

*General Fund Budget Adjustments

15. Claims dated 11/1/11 – 11/30/11

Attachments: None.

E. Other Business

13. STANDING COMMITTEES

A. County Policy – Commissioner Dave Elwell – None.

B. County Affairs & Agencies – Commissioner Dave Lutchka

1. Appointments

- a. Airport – one public member, term to 12/2013
- b. Board of Public Works – one public member, term to 12/2014
- c. Department on Aging Advisory Council – 7 public members, terms to 12/2013
- d. District Library – one public member, term to 12/2015
- e. Fair – one public member, term to 12/2014
- f. Hospital Finance Authority, four public members, terms to 12/2012
- g. Parks – one public member, term to 12/2014
- h. Region 2 Planning Commission – four public members, terms to 12/2014
- i. Road Commission – one public member, term to 12/2017
- j. Traffic Safety Commission – one public member, term to 12/2013

Attachments:

*Board Appointments List

*Applications

C. Human Services – Commissioner Jon Williams - None.

D. Personnel and Finance – Commissioner Jim Videto – None.

14. UNFINISHED BUSINESS – None.

15. NEW BUSINESS

A. Resolution (12-11.44) in Support of Maintaining the Current Population Thresholds for Metropolitan Planning Organizations (MPOs) in Federal Surface Transportation Authorization Legislation

Attachments:

*Memo from Administrator/Controller

*Resolution (12-11.44)

- 16. **PUBLIC COMMENTS**
- 17. **COMMISSIONER COMMENTS**
- 18. **CLOSED SESSION**
- 19. **ADJOURNMENT**

MINUTES
JACKSON COUNTY BOARD OF COMMISSIONERS BOARD MEETING
November 15, 2011
7:00 p.m.
County Commission Chambers

1. **CALL TO ORDER** – Chairman Steve Shotwell called the November 15, 2011, Jackson County Board of Commissioners Meeting to order at 7:00 p.m.

2. **INVOCATION** – by Commissioner Dave Lutchka

3. **PLEDGE OF ALLEGIANCE** – by Chairman Steve Shotwell

4. **ROLL CALL** – County Clerk Amanda Riska

(9) Present. Commissioners Herl, Lutchka, Rice, Duckham, Alexander, Williams, Way, Elwell, and Shotwell. (3) Absent. Commissioners Videto, Mahoney, and Smith.

5. **APPROVAL OF AGENDA**

Moved by Elwell, supported by Duckham for Approval of the Agenda. Motion carried.

6. **AWARDS & RECOGNITIONS**

A. **Proclamation Honoring Jan Seitz on Her Retirement**

Chairman Shotwell read the proclamation into the record and presented to Jan Seitz.

7. **COMMUNICATIONS/PETITIONS** – None.

8. **SPECIAL ORDERS/PUBLIC HEARINGS** – None.

9. **PUBLIC COMMENTS**

Dustin Kraszny, field representative for Congressman Walberg, updated the Board on the Congressman's activities.

Mark Munich, Chairman of the Sierra Club, spoke about Camp Waterloo and expressed concerns about the Department of Corrections management of the camp. He requested that the Board write a letter to MDOC Director Dan Heyns.

Moved by Elwell, supported by Williams to receive photos presented by Mr. Munich. Motion carried.

10. **SPECIAL MEETINGS OF STANDING COMMITTEES** – None.

11. **MINUTES** - Minutes of the 10/18/11 Regular Meeting of the Jackson County Board of Commissioners.

Moved by Alexander, supported by Way to Approve the 10/18/2011 Regular Meeting Minutes of the Jackson County Board of Commissioners. Motion carried.

12. **CONSENT AGENDA**

Cmr. Elwell requested to remove Item E.12. from the Consent Agenda. Item will be moved to 14.A. Unfinished Business for discussion.

Moved by Williams, supported by Lutchka for Approval of the Consent Agenda as Amended. Roll Call: (9) Yeas. Motion carried.

A. County Policy

1. **New Policy - Board Rule 4055 – Commissioner Resolution Adoption**

B. County Affairs & Agencies

2. **Resolution (11-11.32) Authorizing the County Board of Commissioners Chair, James E. Shotwell, Jr., to Sign MDOT Contract #2011-0517 (Federal Project #B-26-0051-2908) for Airport Layout Plan Update**
3. **Resolutions (11-11.37) and (11-11.38) for Purchase of Two Easements (Parcels #88 and #89) for Runway 7-25 Project**
4. **Accept Donation from Jackson Monument Works of a Granite Tablet, Valued at \$3,983, for the Aviation Heritage Park Project**
5. **Authorize Jackson County Sheriff to Extend the Contract with Securus Technologies for Inmate Phone Services to 2016**
6. **Revised Apportionment Report**

C. Human Services

7. **Approval of Updated Car Seat Program Fee Schedule for FY 2012 – 1st Reading**
8. **Resolution (11-11.39) Department of Human Services Board of Directors Resolution for Use of Post 1998 Maintenance of Effort (MOE) Fund for Payment to Bond for Jackson County Medical Care Facility**

D. Personnel & Finance

9. **Approve Quote for Roof Replacement for Fair Grandstand to Low Bidder Spink Construction of Somerset, Michigan in the Amount of \$33,587**
10. **Information Technology Intergovernmental Contract**
11. **Resolution (11-11.36) Authorizing Michael Overton, Administrator/Controller of Jackson County, Michigan, to Sign an Oil and Gas Lease for Jackson County**

E. **Other Business**

~~12. Resolution (11-11.40) Federal Government Balanced Budget Amendment~~

13. **Claims dated 10/1/11 – 10/31/11**

13. **STANDING COMMITTEES**

A. **County Policy – Commissioner Dave Elwell** – None.

B. **County Affairs & Agencies – Commissioner Dave Lutchka**

1. **Appointments**

a. **Land Bank Authority** – one city member, term to 10/2015

Comr. Lutchka stated that the committee recommended David Taylor. No other nominations from the floor. David Taylor appointed.

b. **Parma Township LDFA** – one Board appointment, indefinite term

Comr. Lutchka stated that the committee recommended Mike Way. No other nominations from the floor. Mike Way appointed.

C. **Human Services – Commissioner Jon Williams** - None.

D. **Personnel and Finance – Ranking Commissioner David Lutchka** – None.

14. **UNFINISHED BUSINESS**

A. **Resolution (11-11.40) Federal Government Balanced Budget Amendment**

Moved by Elwell, supported by Herl to Table Resolution (11-11.40) Federal Government Balanced Budget Amendment. Roll Call: (5) Yeas. Comrs. Herl, Alexander, Shotwell, Way, and Elwell. (4) Nays. Lutchka, Rice, Duckham, and Williams. Motion carried.

15. **NEW BUSINESS** – None.

16. **PUBLIC COMMENTS** – None.

17. **COMMISSIONER COMMENTS**

18. **CLOSED SESSION** – None.

19. **ADJOURNMENT** - Chairman Shotwell adjourned the November 15, 2011 Meeting of the Jackson County Board of Commissioners at 7:29 p.m.

James E. Shotwell – Chairman, Jackson County Board of Commissioners

Amanda L. Riska – County Clerk

COUNTY OF JACKSON POLICY MANUAL

ADMINISTRATION OF PUBLIC IMPROVEMENT PROJECTS BY THE DESIGNATED COUNTY AGENCY

PURCHASING

Policy No. 2035

I. Purpose

The primary purpose of this section is to establish formal procedures for the efficient management of public improvement projects as set forth by Federal and State law, established County policies and accepted procedures and standards of project management.

II. Authority and Responsibilities

Public improvements shall be scheduled and developed under direction of the Designated County Agency.

- A. The Designated County Agency for the performance of public improvements (i.e. sanitary sewer and water), as administered under Act 185 of the Public Acts of Michigan, as amended, shall be the Board of Public Works.
- B. The Designated County Agency for the performance of public improvements, as administered by Act 31 of the Public Acts of 1948 as amended, or as may be assigned by the Board of Commissioners, shall be the Jackson County Building Authority.
- C. The Designated County Agency for the performance of public improvements under the jurisdiction of County administrative boards and commissions including Jackson County Airport Board, the Jackson County Fair Board, and the Jackson County Parks and Recreation Commission, shall be the Board of Commissioners.
- D. The Designated County Agency for the performance of public improvements for Drain, Lake Level, and Act 342 projects shall be the Jackson County Drain Commissioner. It is expected that the above mentioned Agency will have adopted Public Improvement policies. Copies of such policies are to be on file in the office of the Administrator/Controller.
- E. The Designated County Agency for the Road Commission will be the Jackson County Road Commission. It is expected that the above mentioned Agency will have adopted Public Improvement policies. Copies of such policies are to be on file in the office of the Administrator/Controller.

- F. The Designated County Agency for the performance of public improvements, not designated under other sections of this policy, shall be the Board of Commissioners.

III. Definitions

- A. **Bid and Proposal:** Interchangeable words with the same meaning. The process used for purchasing non-professional services where price is the determining factor for selecting a vendor.
- B. **Construction:** The process of building, altering, repairing, improving or demolishing any County structure or building, or other County improvements of any kind to any County real estate.
- C. **Engineer, Architect, or Project Manager:** Professional organizations or individuals retained through professional service agreements to perform specific services involving construction projects.
- D. **Proposal:** A document associated with the acquisition of professional services as defined in Policy 2030. A proposal is used when the merit of the concepts will be the primary motive for selecting a vendor.
- E. **Qualifications:** Refers to the form of submission requested for professional services where credentials (i.e. experience, training, and education) are the primary motive for selecting a vendor.

IV. Competitive Selection for Public Improvements under \$50,000

All public improvements under \$50,000, as administered by the Designated County Agency, shall be performed in accordance with the contracting limits and other applicable provisions of law and/or County policies.

V. Competitive Selection for Public Improvements over \$50,000

- A. Contract Purchase Limits
All construction pertaining to public improvements when the estimated cost exceeds \$50,000 shall be by formal written contract with approval of the Designated County Agency, in accordance with State law or County policy.
- B. Specifications/Addenda
Under the direction of the Designated County Agency, the Engineer, Architect, or

Project Manager shall prepare plans and specifications and submit to the Designated County Agency for authorization ~~to bid~~ for all projects exceeding \$50,000. For all projects, a complete set of plans and specifications shall be on file in the appropriate office of the Designated County Agency. Any addendum to the project prepared by the Engineer, Architect, or Project Manager shall also be approved by the Designated County Agency or designee and placed on file.

C. Bid Solicitation

~~The Engineer, Architect, or Project Manager will develop a bidder's list and submit to the Designated County Agency or designee for bid mailing purposes.~~

Bid solicitations will be equally and uniformly made known to all prospective bidders and the public.

1. Notice will be sent to trade or construction publications when the estimated cost exceeds \$250,000 unless a waiver is granted by the appropriate Designated County Agency.
2. A bid notice shall be published in the newspaper of general circulation not less than fourteen (14) days prior to the bid opening date and mailed to all prospective bidders by the County Agency or designee. Sealed bids shall be submitted to the ~~Designated County Agency or designee~~ County Clerk, who shall record the bids.

D. Bid Documents on File

One complete set of bid documents will be kept on file with the Designated County Agency prior to the bid opening date. Copies may be obtained by prospective bidders after paying a reasonable deposit fee to the Engineer, Architect, or Project Manager.

E. Checks or Bonds to Accompany Bids

Each bidder on a public construction contract exceeding \$50,000 will accompany the bid with a certified or cashier's check or bond equal to 5% of the bid. Such check or bond will be forfeited by the bidder and used by the County to pay expenses incurred by the County should the bidder default by not executing a contract with the County in a timely manner. Bid bonds will be returned within a reasonable time to the unsuccessful bidders after contract execution.

F. Tabulation and Award

The Engineer, Architect, or Project Manager shall prepare a summary of the tabulation of ~~the bids~~ in accordance with the Clerk's recording of bids with an award recommendation as to the lowest responsive and responsible bidder. ~~Such recommendation will be presented to the Designated County Agency.~~ The bid award and authorization to execute the contract will be submitted to the Designated County Agency. The bidder receiving the award will be promptly notified in writing by the Engineer, Architect, or Project Manager. The Engineer,

Architect, or Project Manager will issue the notification to proceed to the contractor.

G. Bonds

All bonds must be provided by a company licensed by the State of Michigan, as approved and accepted by the County attorney assigned to the project as to form and content. Following contract award and prior to work commencement, the successful bidder will provide the following if the contract amount will exceed \$50,000;

1. Performance bond in the amount of 100% of the construction contract
2. Labor and material bond
3. Bond Payment

H. Award to Other Than Lowest Bidder

The Designated County Agency shall retain the right to accept or reject any and all bids, and to accept or recommend the acceptance of other than the lowest responsive bid when the public interest is served thereby and such action is in the best interest of the County. If the contract is awarded to other than the lowest responsive bidder, a formal resolution from the Designated County Agency stating the reasons shall accompany the award. Such resolution shall be kept on file with the Designated County Agency and open to public inspection.

I. Certificate of Invoices

All pay requests submitted for work performed shall be certified by the Engineer, Architect, or Project Manager that such work was performed in accordance with specifications. All payment requests will be submitted for approval to the Designated County Agency and forwarded for processing of payment by the ~~Administrative Services~~Finance Department.

J. No Timely Bid

If no timely bid is received on any public construction contract exceeding \$50,000, the Designated County Agency may authorize the direct negotiation of a contract.

K. Contract Coordination

Contract negotiations between the successful bidder and the County will be coordinated by the Designated County Agency or designee.

VI. Invoices/Change Orders

A. Pay Requests

The Contractor shall submit requests for payment to the Engineer, Architect, or Project Manager providing units of work completed, unit prices, and total value of work completed. An invoice shall be accompanied by an Invoice Affidavit signed

and notarized by the contractor. A Request for Payment form must be approved and signed by the Engineer, Architect, or Project Manager before payment is made. The Engineer, Architect, or Project Manager will verify the arithmetical computation appearing on the invoice.

B. Change Orders Shall be Used to Change Contracts as Follows:

1. The County reserves the right in all contract agreements to increase or decrease quantities and alter the details of construction as the Engineer, Architect, or Project Manager may consider necessary or desirable by approved change order. A change order shall only be considered when necessary.
2. A change order shall be defined as a written order issued by the Engineer, Architect, or Project Manager for changes in the construction work and other contractual services. Such change orders shall be prepared on a standard form provided by the Engineer, Architect, or Project Manager and shall set forth the nature of the change and the method of payment. Change orders must be signed by the Engineer, Architect, or Project Manager and the Designated County Agency or designee.
3. Change orders under \$10,000 may be authorized by the Administrator/Controller.
4. Change orders between \$10,000 and under \$50,000 shall be administered as follows: The exception to the procedure shall be emergency change orders as determined by the Engineer, Architect, or Project Manager. These change orders shall be recommended by the Engineer, Architect, or Project Manager. All emergency change orders, regardless of amount, shall be provided promptly to the Designated County Agency for ratification.
 - a. Change orders involving the Board of Public Works shall be recommended by the Engineer, Architect, or Project Manager, with ratification by the Board of Public Works at the next available meeting.
 - b. Change orders involving the Jackson County Building Authority shall be recommended by the Engineer, Architect, or Project Manager and submitted to the Jackson County Building Authority at the next available meeting.
 - c. Change orders involving County administrative board and commissions including the Jackson County Airport Board, Jackson County Fair Board, Jackson County Parks and Recreation

Commission, shall be recommended by the Engineer, Architect, Project Manager, and the Director of the appropriate board or commission with ratification by the appropriate board at the next available meeting.

- d. Change orders involving all other public improvements shall be recommended by the Engineer, Architect, Project Manager, and Board of Commissioners and Administrator/Controller or designee and submitted for ratification at the next available meeting.

| 45. Change orders over \$50,000 shall be administered as follows:

- a. Change orders involving the Board of Public Works shall be recommended by the Engineer, Architect, or Project Manager, and authorized by the Board of Public Works, in advance.
- b. Change orders involving the Jackson County Building Authority shall be recommended by the Engineer, Architect, or Project Manager and authorized by the Jackson County Building Authority in advance.
- c. Change orders involving County administrative board and commissions including the Jackson County Airport Board, Jackson County Fair Board, Jackson County Parks and Recreation Commission, shall be recommended by the Engineer, Architect, Project Manager, and Director of the appropriate board or commission and authorized by the Board of Commissioners, in advance.
- d. Change orders involving all other public improvements shall be recommended by the Engineer, Architect, Project Manager, Administrator/Controller or designee and authorized by the Board of Commissioners, in advance.

| 56. Balancing adjustments shall be submitted as a change order approved by the Designated County Agency.

VII. Major Maintenance and Public Improvements for the Resource Recovery Facility (RRF)

- A. It shall be the policy of the Board of Public Works that all major maintenance expenses and public improvements for the Resource Recovery Facility (RRF) exceeding \$50,000 shall be subject to the designated operating contractor for the facility securing a minimum of three bids for such major maintenance expenses or public improvements. The designated operating contractor shall recommend and approve the bid award involving the lowest responsible bidder for these

expenditures. The bid award shall be subject to the approval of the Director of the Board of Public Works. Furthermore, all expenditures authorized under this section shall be subject to ratification by the Board of Public Works.

- B. For emergency expenditures under this section not to exceed \$250,000, the designated operating contractor for the facility shall be authorized to approve emergency purchases with the approval of the Director of the Board of Public Works. All emergency purchases under this section shall further require the ratification by the Board of Public Works.

VIII. Use of County Labor

- A. The County shall contract out traditional building trades works for all capital facilities or improvement projects whenever the estimate for any labor for individual electrical, plumbing, HVAC, carpentry, or other trades work is in excess of \$20,000. Any capital improvement project where the estimate for labor exceeds \$20,000 may be approved by the Administrator/Controller.
- B. All traditional building trades work for capital facilities or improvement projects below such stated amounts may be performed by County personnel or may be bid out, depending on the availability of County personnel, at the discretion of the County Administrator/Controller and/or the Deputy Administrator.

COUNTY OF JACKSON POLICY MANUAL

BOARD RULES

POLICY NO. 4060

ARTICLE VI

VOTING

Section 6.1 A member may order a roll call vote on any questions submitted to the Board.

Section 6.2 When a roll call vote is ordered and after the Chairperson or the Clerk has stated the motion, the Clerk is directed to call the roll or an electrical roll call system may be used [PA 156 of 1851, Sec. 46.3 (3)]. No member may speak on the motion nor shall any other motion be in order until the roll call is completed and the results are announced.

Section 6.3 When a roll call vote is taken, the roll shall be called by the members' names in numerical progression by district. The first member to vote shall be in continuous rotation from the previous meeting. The Chairperson shall always vote last. The vote of each member shall be recorded in the minutes. All members shall vote simultaneously if an electrical roll call system is used.

Section 6.4 The final passage or adoption of a measure, resolution, or allowance of a claim, except for certain parliamentary procedures requiring a two-thirds vote, must be adopted by a majority of the Board elected and serving.

Adopted 12/19/00
Revised 10/19/04
Revised 06/20/06

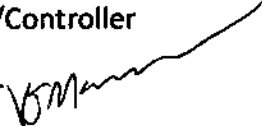


J X N

Jackson County Airport

3606 Wildwood Avenue
(517) 788-4225

Jackson, Michigan 49202
FAX (517) 788-4682

TO: Michael Overton, Administrator/Controller
FROM: Kent L. Maurer, Airport Manager 
SUBJECT: Donation of Aircraft Scale Model Replica by Bob Lazebnik
DATE: November 16, 2011

Motion Requested: Accept offer to donate Fokker DR-1 scale model tri-plane as depicted.

I. Background

Mr. Bob Lazebnik is offering to construct and donate an aluminum scale model replica of the Fokker DR-1 for Aviation Heritage Park. This WWI era aircraft will have an exposed frame and not be covered. The aircraft would be located in Aviation Heritage Park on a pedestal. The aircraft will measure 19' long and 25' wide.

The Airport Board has voted to accept this donation. It would be constructed within 6 months. The Airport Advisory Council will determine location within the park for this aircraft.

II. Current Situation

This aircraft will be a significant addition to Aviation Heritage Park

III. Analysis

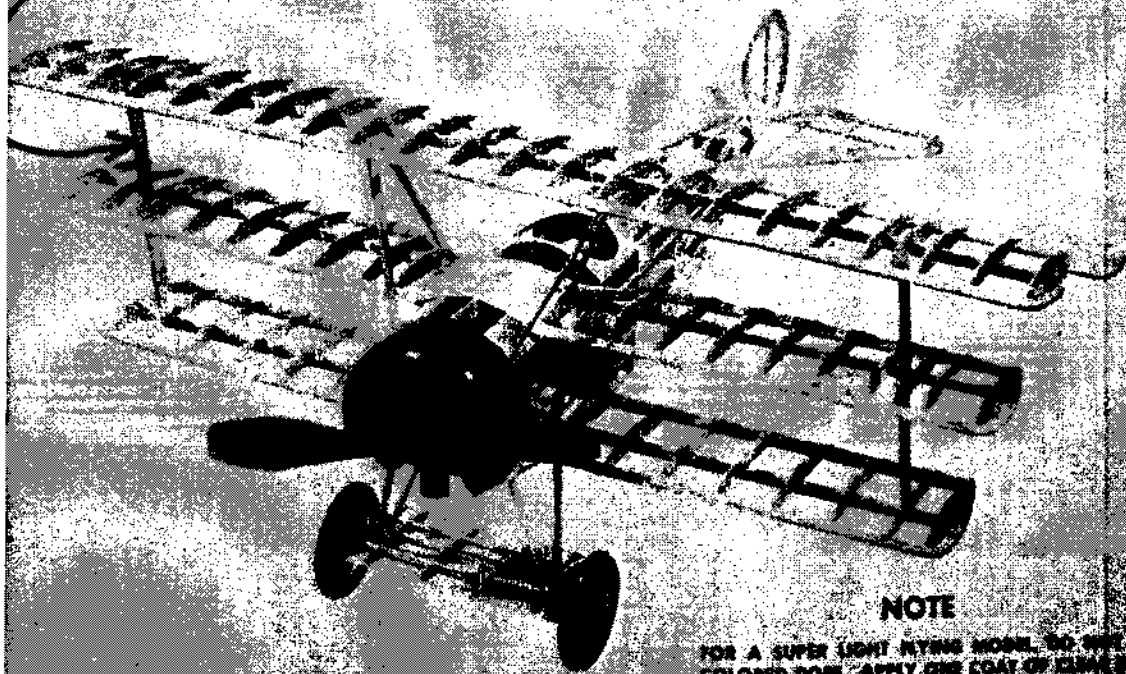
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|--------------|---|
| A. Strategic | There is sufficient room for this display to be added to the Park |
| B. Financial | No cost |
| C. Customer | Airport patrons and visitors |
| D. Timing | Six months projected |

IV. Recommendation

I recommend approval of this request.

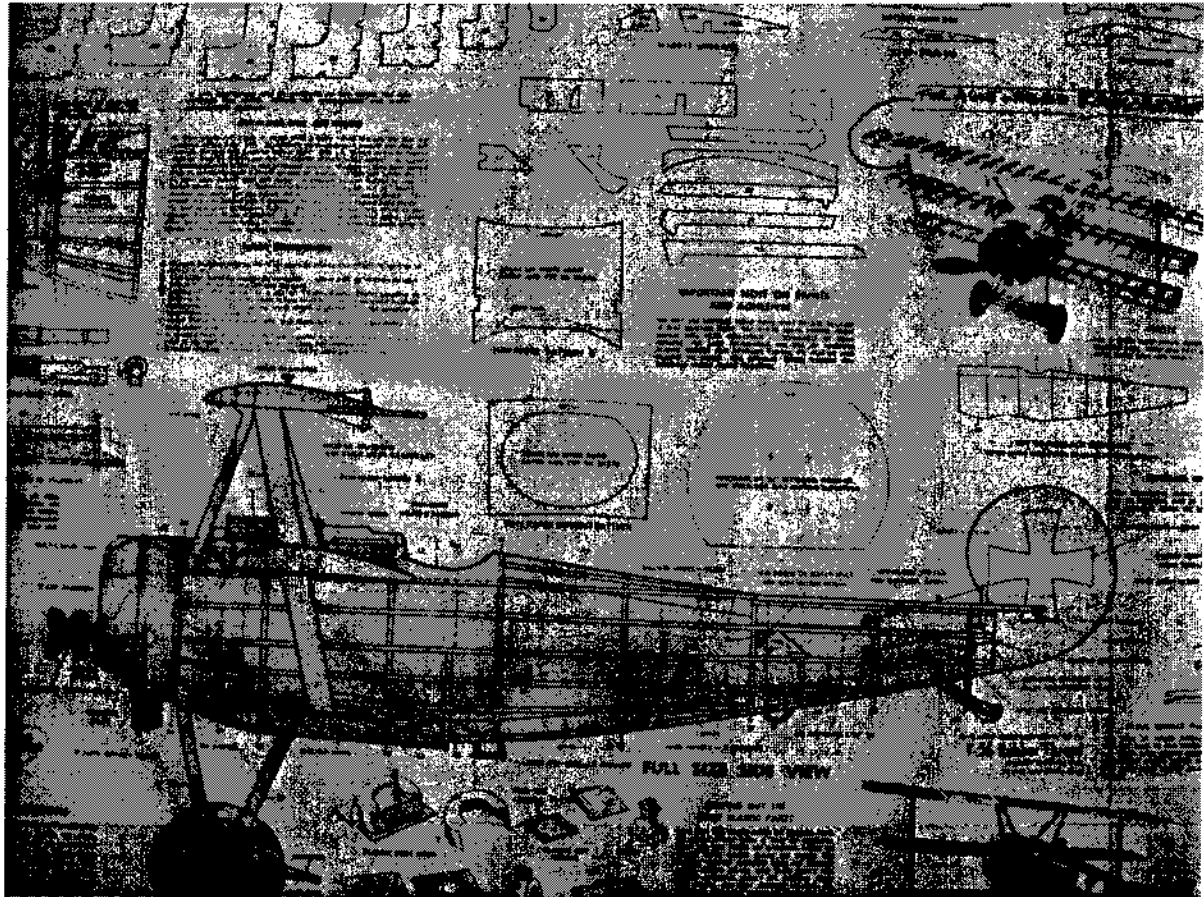
Attachments: PDF of aircraft plans

FOR ALINE + INGRID RAKCHENBERG



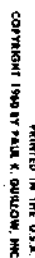
NOTE

FOR A SUPER LIGHT FLYING MODEL, DO NOT USE
COLORED PAPER. APPLY ONE COAT OF CLEAR VARNISH
OVER TISSUE THEN ADD DECALS.



☐ F9 ☐ NO REQ.

THE PATTERNS FURNISHED HERE ARE FOR REFERENCE ONLY -- USE FOR TEACHING IN CASE OF LOSS OR DESTRUCTION OF DIRECT DATA PARTS



FOR A LINE + 1 NG-210 FRACTION MEMBER

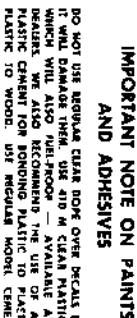
744A GAS ENGINE CAN BE INSTALLED IN THIS MODEL FOR GAS
FUELED FREE FLYING. FOLLOW THE INSTALLATION AND FLIGHT
INSTRUCTIONS CAREFULLY

[illegible]

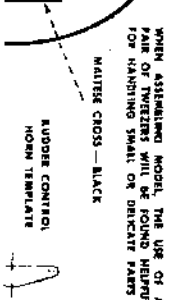
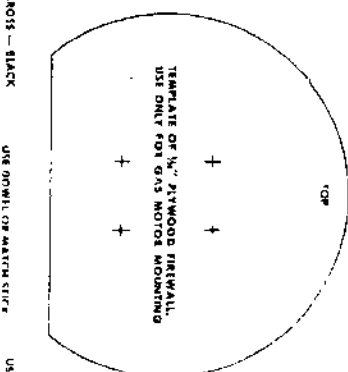
19

Under model 3 for straight forward glide – motion with up or down elevator. Under the above 200 foot test curve, we get that the g is 2.94 ± 2.94 g . Variable Dynamic Pressure on airfoils – the flat of the blade is then forward (i.e. the wingtip is pointed outwards) for all flying at too much thrust; is retracted if the propeller is in the normal position.

terminals should be made with a very short end of pins and preferably in a straight line.



WHICH WILL ALSO PULP-PROOF — AVAILABLE AT YOUR LOCAL DEALERS. WE ALSO RECOMMEND THE USE OF AMERON® PLASTIC CEMENT FOR BONDING PLASTIC TO PLASTIC AND PLASTIC TO WOOD. USE REGULAR MODEL CEMENT FOR BONDING WOOD PARTS TOGETHER.



NOTE

FOR A SLEET (KNOT FLYING MODEL, DO NOT USE COLORED DOME. APPLY ONE COAT OF CLEAR DOME OVER TISSUE THEN ADD DECALS.

KEY TO FUSLAGE COVERING
COVER SHEET WITH PIECES OF TISSUE IN ORDER SHOWN

MODELING HINT

WHEN ASSEMBLING MODEL, THE USE OF A PAIR OF TWEEZERS WILL BE FOUND HELPFUL FOR HANDLING SMALL OR DELICATE PARTS



Jackson County ADMINISTRATOR/CONTROLLER

Michael R. Overton, Administrator/Controller

Adam J. Brown, Deputy Administrator

TO: County Agencies Committee
Board of County Commissioners

FROM: Adam J. Brown
Deputy Administrator

SUBJECT: Court Appointed Services Contract

DATE: November 30, 2011

Motion Requested

The (County Agencies Committee or Board of County Commissioners) approves the selection of the five attached fixed price contracts for 20% of the caseload of the 12th District Court court-appointed services contracts for the remainder of 2012 and 2013. Furthermore the Board of County Commissioners waives the requirement under County Policy 5100 to have \$1,000,000 of general liability insurance coverage in lieu of \$300,000 of general liability coverage and \$300,000 of professional liability coverage.

I. Background

- A. The contracts for the 12th District Court court-appointed services expire on December 31, 2011.
- B. In cooperation with the 12th District Court, the County Administrator/Controller's Office solicited professional qualifications which were in turn reviewed by the 12th District Court judges.
- C. The amount of each contract will be \$29,084 for 2012 and \$29,375 for 2013. The amounts were determined based on market adjustments for county employees and case load trends.
- D. On September 23rd the County Administrator's Office released a request for qualifications (RFQ) for the court appointed services contract for 2012 and 2013.

II. Current Situation

- A. We received 14 letters of interest with qualifications to participate in the court appointed services contract from the following firms/attorneys:

Firm	Attorney	Backup
Dungan, Lady, Kirkpatrick, & Dungan, P.L.L.C.	Michael Dungan	David Lady
Dungan, Lady, Kirkpatrick, & Dungan, P.L.L.C.	David Lady	Andrew Kirkpatrick
Dungan, Lady, Kirkpatrick, & Dungan, P.L.L.C.	Andrew Kirkpatrick	Michael Dungan
Jennifer Veronica Lamp	Jennifer Veronica Lamp	
Jacobs and Engle, P.C.	Wendell E. Jacobs, Jr.	
Jacobs and Engle, P.C.	Jerry M. Engle	
Brown, Raduazo & Hilderley	Christopher M. Hurlburt	
Brandt, Dehncke, PLLC	Alfred P. Brandt	Susan Dehncke
Brandt, Dehncke, PLLC	Susan Dehncke	Alfred P. Brandt
Brandt, Dehncke, PLLC	Allison L. Bates	
Brandy and Lyons	George D. Lyons, Esq.	
Brown, Raduazo & Hilderley	Craig T Pappin	
Phillip H. Berkemeier	Phillip H. Berkemeier	
Bruce A. Clark	Bruce A. Clark	

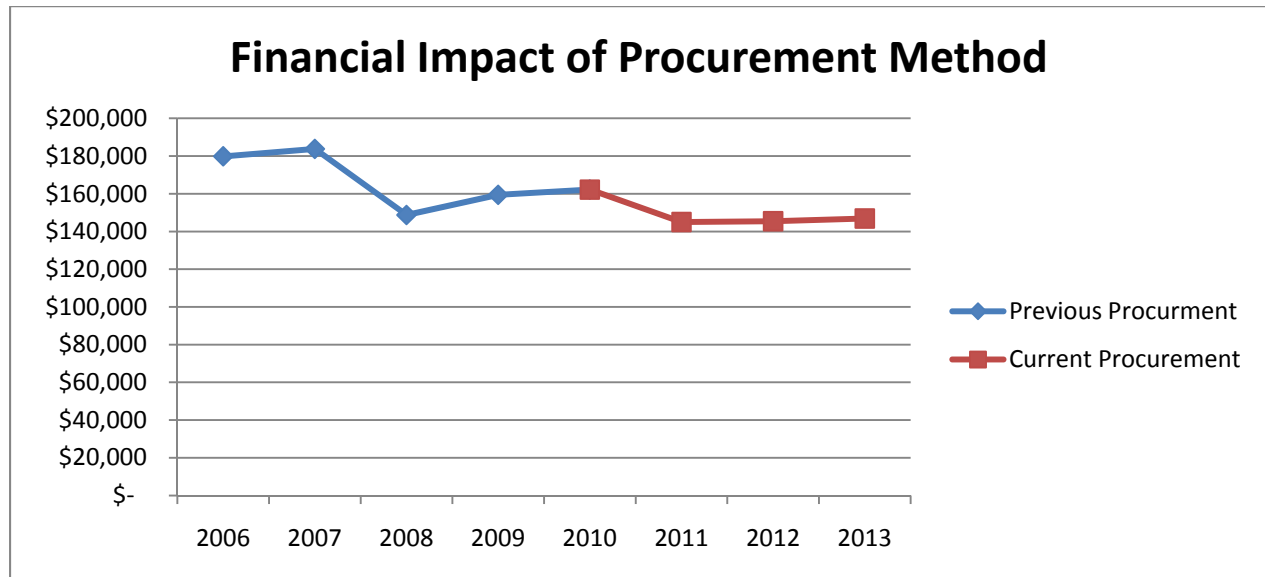
- B. The 12th District Court judges have reviewed the letters of interest and selected the following five attorneys/firms based on qualifications to receive contracts for 20% of the caseload each.

Firm/Attorney	Caseload
Andrew Kirkpatrick	20%
Wendell E. Jacobs, Jr.	20%
Alfred P. Brandt	20%
George Lyons	20%
Bruce Clark	20%

III. Analysis

- A. **Strategic** – Public defense is a constitutionally mandated service and is provided in both the District and Circuit Court. The judicial system supports the County’s strategic plan goal of having a safe community.
- B. **Financial** - This fixed price contract has resulted in savings for court appointed services. The change in procurement has not appeared to have an impact on interest from counsel. Prior to 2010 as shown below, the County saw much variability in costs.

<u>2006 Actual</u>	\$179,814
<u>2007 Actual</u>	\$183,750
<u>2008 Actual</u>	\$148,714
<u>2009 Actual</u>	\$159,415
<u>2010 Actual</u>	\$162,495
<u>2011 Projection</u>	\$145,000
<u>2012 Projection</u>	\$145,420
<u>2013 Projection</u>	\$146,875



C. Legal/Policy –

1. The contract for public defense is between the Board of County Commissioners and the attorney's and therefore requires the Board's approval. The District Court has provided recommendations based on qualification as per county policy.
2. In consultation with the Chief District Court judge, the county administrator/controller's office agreed to request the County Agencies Committee and Board of County Commissioners to wave County Policy 5100 which requires contractors working for the County of Jackson to carry \$1,000,000 in general liability insurance. The Court and Administrator's Office agree that \$300,000 in general liability insurance and \$300,000 in professional liability insurance will be sufficient to protect the county from harm. The Board also approved this waiver in 2010.

D. Timing – The current contracts expire on December 31, 2011. Without approval of the new contracts, work will continue according to the previous contract.

IV. Alternatives - The Board will not fulfill its constitutional responsibility to provide for defense of the indigent without approval of this contract. Delay or re-solicitation of this service will require that counsel be retained under the previous contract.

V. Recommendation

The County Administrator/Controller recommends that the (County Agencies Committee or Board of County Commissioners) approves the selection of the five attached fixed price contracts for 20% of the caseload of the 12th District Court court-appointed services contracts for 2012 and 2013.

The County Administrator/Controller recommends that the Board of County Commissioners waves the requirement under County Policy 5100 to have \$1,000,000 of general liability insurance coverage in lieu of \$300,000 of general liability coverage and \$300,000 of professional liability coverage.

Attachments:

Email From Tammy Bates: Recommendation from District Court
Contract with Andrew Kirkpatrick
Contract with Wendell E. Jacobs, Jr.
Contract with Bruce Clark
Contract with George Lyons
Contract with Alfred P. Brandt

**CONTRACT FOR
COURT APPOINTED SERVICES - MISDEMEANOR DEFENDANTS
IN THE 12TH JUDICIAL DISTRICT COURT**

This contract represents the agreement between 12th Judicial District Court, hereinafter referred to as “**Court**” and the County of Jackson, hereinafter referred to as “**County**” with Andrew Kirkpatrick, attorney at law, hereinafter referred to as “**Attorney**” for the representation of those who qualify as indigent defendants in the 12th District Court.

WITNESSETH:

WHEREAS, the right of all persons against whom criminal prosecutions are brought to be represented by counsel is guaranteed by the Constitution of the United States and the Constitution of the State of Michigan; and

WHEREAS, the costs and expense of such counsel in the representation of indigent defendants is a proper and lawful charge upon the Court and County of Jackson; and

WHEREAS, it is in the public interest that the Court and County of Jackson employ private counsel to render the usual and customary legal services of a public defender, and the parties desire to contract with respect thereto.

NOW, THEREFORE, the parties hereto agree as follows:

1) **SCOPE OF ATTORNEY SERVICES**

A. **General**

Attorney agrees to represent persons whom the court has deemed indigent, when appointed to do so by a judge of the Court, in accordance with the provisions of this Contract, the Request for Proposal for Court Appointed Services – Misdemeanor Defendants issued September 23, 2011, and Attorney’s proposal dated October 10, 2011, that was submitted by October 14, 2011, which are incorporated herein by this reference as Exhibits A and B, respectively. If there is any conflict between the provisions of this Contract and said Exhibits A and B, this Contract shall be controlling

B. **Specific Duties; New Cases**

Attorney agrees to represent such persons in and regarding misdemeanor actions commenced on or after the effective date of this contract

C. **Pending Cases; Transition**

Attorney also agrees to represent such persons, in and regarding misdemeanor actions which are pending as of the effective date of this contract.

D. Case; Termination

Attorney, once appointed, shall represent the defendant through all court proceedings until disposition of the charge(s) for which he or she was appointed at the district court level. In the event the defendant wishes to exercise an appeal of right, the Attorney shall prepare and file the appeal paperwork. Once the appeal has been filed, a new appointment will be made.

E. Conflict; Scheduling

The Court and Attorney, recognizing that conflicts in schedules may arise, will make a reasonable attempt to accommodate each other in that regard.

F. Conflicts of Interest; Defendant or other interested party

In the event the Attorney has a conflict of interest that prevents him/her from representing any person pursuant to this contract, it shall be her/his duty to advise the chief judge or court administrator of the nature of the conflict.

G. Conflict of Interest; Judges and/or Court

This agreement will be suspended as to any attorney, upon a vote of the majority of the judges, should the Attorney put himself/herself in a position of conflict of interest with any judge and/or the Court. The suspension will terminate when the conflict of interest ceases to exist.

H. Reporting

Attorneys will be notified of each appointment by letter from the Court. Once their representation of an indigent defendant has been completed, the attorney shall submit to the Court a signed statement so indicating that to the court.

2) CONTRACT TERM; TERMINATION

This contract shall take effect on January 1, 2012, and shall be in effect through December 31, 2013, unless earlier extended by mutual written consent or terminated. This contract may be terminated by either party by the giving of thirty (30) days written notice of termination to the other party. The Court and County may terminate the contract at any time for good cause. "Good cause" for early termination of the contract by the Court and County means any of the following actions or inactions by Attorney:

- A. Pleading no contest to, pleading guilty of or being found guilty of a felony or a crime involving moral turpitude;
- B. Persistent failure or inability to perform the duties of the Contract, whether willful or otherwise;

- C. Any disability that seriously interferes with the performance of duties and is permanent or is likely to become permanent;
- D. Willful misconduct by the attorney pertaining to Contract performance;
- E. Habitual intemperance in the use of intoxicants or drugs;
- F. Conduct prejudicial to the administration of justice, which brings the Attorney into disrepute;
- G. Continuing conflict between private practice and Contract services; and
- H. Failure to maintain good standing and active membership in State Bar.

2) CONTINUATION OF SERVICES; EXPIRATION OF TERM

Upon termination of the Contract, Attorney shall nevertheless continue to represent existing court appointed clients, unless otherwise directed by the court. This provision is subject to, and does not relieve Attorney from, providing representation to existing clients, or withdrawing from representation of existing clients, in a manner consistent with all ethical obligations and as provided for in the State Bar Rules. Services shall be provided in such cases in the same manner as provided in this Contract. Compensation for such services shall be at the rate specified in this Contract.

3) PERCENTAGE OF WORK

Attorney shall be assigned and shall accept appointments of counsel for indigent defendants made by the Court during the term of the contract, including any appointments made for alleged probation violations or misdemeanor appeals, in the proportion as set forth below: Attorney Andrew Kirkpatrick Percentage of appointments 20%.

5) COMPENSATION AND PAYMENT

- A. The compensation for an Attorney representing assigned indigent defendants under this contract shall be by calendar year as follows:

2012	\$29,084
2013	\$29,375

- B. The above fee will be paid regardless of the number of charges arising out of the incident or the number of clients.

6) ADDITIONAL COMPENSATION

An attorney shall not request nor receive any additional compensation for services rendered for an indigent defendant pursuant to this contract from any other source.

7) BILLING

The Court Administrator will monitor and accumulate the statements of services rendered and ensure that cases are distributed equally between all five contracts for public defense. Attorneys may bill the County on a monthly basis equal to the incremental portion of the contract (e.g. 1/12th of an annual contract per month). The County will pay the attorneys on a monthly basis. Payment shall be based upon the year that services were rendered and not upon request for payment.

8) MINIMAL PROFESSIONAL QUALIFICATIONS

An Attorney performing duties under this Contract shall satisfy the minimum requirements for practicing law in the State of Michigan. Every attorney must have served at least two years in one of the following capacities: prosecutor, appointed public defender, or criminal defense counsel.

9) INSURANCE

A. General Liability Insurance: Attorney shall procure and maintain for the duration of this Contract, insurance. Attorney shall maintain general liability insurance of At least \$300,000 per occurrence coverage for bodily injury, personal injury and property damage claims for injuries to persons or damages to property that may arise from, or be in connection with the performance of the work hereunder by Attorney, Attorney's agents, representatives, employees, and subcontractors. A valid insurance declaration shall be on file with the Court during the term of the contract.

B. Professional Liability Insurance: Attorney shall procure and maintain professional liability insurance covering professional services in an amount of at least \$300,000 per occurrence. A valid insurance declaration shall be on file with the Court during the term of the contract.

10) PERFORMANCE OF WORK OUTSIDE OF CONTRACT

No work of any kind shall be accepted which would conflict with Attorney's performance of services as required pursuant to this Contract.

11) INDEPENDENT CONTRACTOR

The parties agree that Attorney is an independent contractor and is not an agent or principal of Court or County. Attorney is, and shall at all times be deemed, independent and shall be wholly responsible for the manner in which she/he performs the services required by the terms of this Contract. Attorney exclusively assumes the responsibility for the acts of her/his employees as they relate to the services to be provided during the course and scope of their employment. Attorney, her/his agents and employees shall not be entitled to any rights or

privileges of employees of Court or County and shall not be considered in any manner to be employees of Court or County.

12) **SUBSTITUTION OF ATTORNEY**

The Court may appoint a replacement or reassign this contract or take any other action that the Court deems necessary should an attorney resign, be removed, or be suspended from the contract.

13) **EQUIPMENT**

Attorney shall maintain a working fax machine during the period of the contract and supply the court with a fax number.

14) **COMPLETE AGREEMENT; AMENDMENT**

This contract expresses the understanding of the parties concerning all matters covered. No addition to, or alteration of, the terms of this Contract, whether by written or verbal understanding of the parties, their officers, agents or employees, shall be valid unless made in the form of a written amendment of this Contract and formally approved by the parties.

IN WITNESS WHEREOF, the parties hereto have set their hands

12th JUDICIAL DISTRICT COURT

Hon. R. Darryl Mazur
Chief Judge

COUNTY OF JACKSON

James Shotwell
Chairman, Jackson County Board of Commissioners

ATTORNEY AT LAW

**CONTRACT FOR
COURT APPOINTED SERVICES - MISDEMEANOR DEFENDANTS
IN THE 12TH JUDICIAL DISTRICT COURT**

This contract represents the agreement between 12th Judicial District Court, hereinafter referred to as “**Court**” and the County of Jackson, hereinafter referred to as “**County**” with Wendell E. Jacobs, Jr., attorney at law, hereinafter referred to as “**Attorney**” for the representation of those who qualify as indigent defendants in the 12th District Court.

WITNESSETH:

WHEREAS, the right of all persons against whom criminal prosecutions are brought to be represented by counsel is guaranteed by the Constitution of the United States and the Constitution of the State of Michigan; and

WHEREAS, the costs and expense of such counsel in the representation of indigent defendants is a proper and lawful charge upon the Court and County of Jackson; and

WHEREAS, it is in the public interest that the Court and County of Jackson employ private counsel to render the usual and customary legal services of a public defender, and the parties desire to contract with respect thereto.

NOW, THEREFORE, the parties hereto agree as follows:

1) **SCOPE OF ATTORNEY SERVICES**

A. **General**

Attorney agrees to represent persons whom the court has deemed indigent, when appointed to do so by a judge of the Court, in accordance with the provisions of this Contract, the Request for Proposal for Court Appointed Services – Misdemeanor Defendants issued September 23, 2011, and Attorney’s proposal dated October 13, 2011, that was submitted by October 14, 2011, which are incorporated herein by this reference as Exhibits A and B, respectively. If there is any conflict between the provisions of this Contract and said Exhibits A and B, this Contract shall be controlling

B. **Specific Duties; New Cases**

Attorney agrees to represent such persons in and regarding misdemeanor actions commenced on or after the effective date of this contract

C. **Pending Cases; Transition**

Attorney also agrees to represent such persons, in and regarding misdemeanor actions which are pending as of the effective date of this contract.

D. Case; Termination

Attorney, once appointed, shall represent the defendant through all court proceedings until disposition of the charge(s) for which he or she was appointed at the district court level. In the event the defendant wishes to exercise an appeal of right, the Attorney shall prepare and file the appeal paperwork. Once the appeal has been filed, a new appointment will be made.

E. Conflict; Scheduling

The Court and Attorney, recognizing that conflicts in schedules may arise, will make a reasonable attempt to accommodate each other in that regard.

F. Conflicts of Interest; Defendant or other interested party

In the event the Attorney has a conflict of interest that prevents him/her from representing any person pursuant to this contract, it shall be her/his duty to advise the chief judge or court administrator of the nature of the conflict.

G. Conflict of Interest; Judges and/or Court

This agreement will be suspended as to any attorney, upon a vote of the majority of the judges, should the Attorney put himself/herself in a position of conflict of interest with any judge and/or the Court. The suspension will terminate when the conflict of interest ceases to exist.

H. Reporting

Attorneys will be notified of each appointment by letter from the Court. Once their representation of an indigent defendant has been completed, the attorney shall submit to the Court a signed statement so indicating that to the court.

2) CONTRACT TERM; TERMINATION

This contract shall take effect on January 1, 2012, and shall be in effect through December 31, 2013, unless earlier extended by mutual written consent or terminated. This contract may be terminated by either party by the giving of thirty (30) days written notice of termination to the other party. The Court and County may terminate the contract at any time for good cause. "Good cause" for early termination of the contract by the Court and County means any of the following actions or inactions by Attorney:

- A. Pleading no contest to, pleading guilty of or being found guilty of a felony or a crime involving moral turpitude;
- B. Persistent failure or inability to perform the duties of the Contract, whether willful or otherwise;

- C. Any disability that seriously interferes with the performance of duties and is permanent or is likely to become permanent;
- D. Willful misconduct by the attorney pertaining to Contract performance;
- E. Habitual intemperance in the use of intoxicants or drugs;
- F. Conduct prejudicial to the administration of justice, which brings the Attorney into disrepute;
- G. Continuing conflict between private practice and Contract services; and
- H. Failure to maintain good standing and active membership in State Bar.

2) CONTINUATION OF SERVICES; EXPIRATION OF TERM

Upon termination of the Contract, Attorney shall nevertheless continue to represent existing court appointed clients, unless otherwise directed by the court. This provision is subject to, and does not relieve Attorney from, providing representation to existing clients, or withdrawing from representation of existing clients, in a manner consistent with all ethical obligations and as provided for in the State Bar Rules. Services shall be provided in such cases in the same manner as provided in this Contract. Compensation for such services shall be at the rate specified in this Contract.

3) PERCENTAGE OF WORK

Attorney shall be assigned and shall accept appointments of counsel for indigent defendants made by the Court during the term of the contract, including any appointments made for alleged probation violations or misdemeanor appeals, in the proportion as set forth below: Attorney Wendell E. Jacobs, Jr., Percentage of appointments 20%.

5) COMPENSATION AND PAYMENT

- A. The compensation for an Attorney representing assigned indigent defendants under this contract shall be by calendar year as follows:

2012	\$29,084
2013	\$29,375

- B. The above fee will be paid regardless of the number of charges arising out of the incident or the number of clients.

6) ADDITIONAL COMPENSATION

An attorney shall not request nor receive any additional compensation for services rendered for an indigent defendant pursuant to this contract from any other source.

7) BILLING

The Court Administrator will monitor and accumulate the statements of services rendered and ensure that cases are distributed equally between all five contracts for public defense. Attorneys may bill the County on a monthly basis equal to the incremental portion of the contract (e.g. 1/12th of an annual contract per month). The County will pay the attorneys on a monthly basis. Payment shall be based upon the year that services were rendered and not upon request for payment.

8) MINIMAL PROFESSIONAL QUALIFICATIONS

An Attorney performing duties under this Contract shall satisfy the minimum requirements for practicing law in the State of Michigan. Every attorney must have served at least two years in one of the following capacities: prosecutor, appointed public defender, or criminal defense counsel.

9) INSURANCE

A. General Liability Insurance: Attorney shall procure and maintain for the duration of this Contract, insurance. Attorney shall maintain general liability insurance of At least \$300,000 per occurrence coverage for bodily injury, personal injury and property damage claims for injuries to persons or damages to property that may arise from, or be in connection with the performance of the work hereunder by Attorney, Attorney's agents, representatives, employees, and subcontractors. A valid insurance declaration shall be on file with the Court during the term of the contract.

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The parties agree that Attorney is an independent contractor and is not an agent or principal of Court or County. Attorney is, and shall at all times be deemed, independent and shall be wholly responsible for the manner in which she/he performs the services required by the terms of this Contract. Attorney exclusively assumes the responsibility for the acts of her/his employees as they relate to the services to be provided during the course and scope of their employment. Attorney, her/his agents and employees shall not be entitled to any rights or

privileges of employees of Court or County and shall not be considered in any manner to be employees of Court or County.

12) **SUBSTITUTION OF ATTORNEY**

The Court may appoint a replacement or reassign this contract or take any other action that the Court deems necessary should an attorney resign, be removed, or be suspended from the contract.

13) **EQUIPMENT**

Attorney shall maintain a working fax machine during the period of the contract and supply the court with a fax number.

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This contract expresses the understanding of the parties concerning all matters covered. No addition to, or alteration of, the terms of this Contract, whether by written or verbal understanding of the parties, their officers, agents or employees, shall be valid unless made in the form of a written amendment of this Contract and formally approved by the parties.

IN WITNESS WHEREOF, the parties hereto have set their hands

12th JUDICIAL DISTRICT COURT

Hon. R. Darryl Mazur
Chief Judge

COUNTY OF JACKSON

James Shotwell
Chairman, Jackson County Board of Commissioners

ATTORNEY AT LAW

**CONTRACT FOR
COURT APPOINTED SERVICES - MISDEMEANOR DEFENDANTS
IN THE 12TH JUDICIAL DISTRICT COURT**

This contract represents the agreement between 12th Judicial District Court, hereinafter referred to as **“Court”** and the County of Jackson, hereinafter referred to as **“County”** with Alfred P. Brandt, attorney at law, hereinafter referred to as **“Attorney”** for the representation of those who qualify as indigent defendants in the 12th District Court.

WITNESSETH:

WHEREAS, the right of all persons against whom criminal prosecutions are brought to be represented by counsel is guaranteed by the Constitution of the United States and the Constitution of the State of Michigan; and

WHEREAS, the costs and expense of such counsel in the representation of indigent defendants is a proper and lawful charge upon the Court and County of Jackson; and

WHEREAS, it is in the public interest that the Court and County of Jackson employ private counsel to render the usual and customary legal services of a public defender, and the parties desire to contract with respect thereto.

NOW, THEREFORE, the parties hereto agree as follows:

1) **SCOPE OF ATTORNEY SERVICES**

A. **General**

Attorney agrees to represent persons whom the court has deemed indigent, when appointed to do so by a judge of the Court, in accordance with the provisions of this Contract, the Request for Proposal for Court Appointed Services – Misdemeanor Defendants issued September 23, 2011, and Attorney’s proposal dated October 11, 2011, that was submitted by October 14, 2011, which are incorporated herein by this reference as Exhibits A and B, respectively. If there is any conflict between the provisions of this Contract and said Exhibits A and B, this Contract shall be controlling

B. **Specific Duties; New Cases**

Attorney agrees to represent such persons in and regarding misdemeanor actions commenced on or after the effective date of this contract

C. **Pending Cases; Transition**

Attorney also agrees to represent such persons, in and regarding misdemeanor actions which are pending as of the effective date of this contract.

D. Case; Termination

Attorney, once appointed, shall represent the defendant through all court proceedings until disposition of the charge(s) for which he or she was appointed at the district court level. In the event the defendant wishes to exercise an appeal of right, the Attorney shall prepare and file the appeal paperwork. Once the appeal has been filed, a new appointment will be made.

E. Conflict; Scheduling

The Court and Attorney, recognizing that conflicts in schedules may arise, will make a reasonable attempt to accommodate each other in that regard.

F. Conflicts of Interest; Defendant or other interested party

In the event the Attorney has a conflict of interest that prevents him/her from representing any person pursuant to this contract, it shall be her/his duty to advise the chief judge or court administrator of the nature of the conflict.

G. Conflict of Interest; Judges and/or Court

This agreement will be suspended as to any attorney, upon a vote of the majority of the judges, should the Attorney put himself/herself in a position of conflict of interest with any judge and/or the Court. The suspension will terminate when the conflict of interest ceases to exist.

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Attorneys will be notified of each appointment by letter from the Court. Once their representation of an indigent defendant has been completed, the attorney shall submit to the Court a signed statement so indicating that to the court.

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3) PERCENTAGE OF WORK

Attorney shall be assigned and shall accept appointments of counsel for indigent defendants made by the Court during the term of the contract, including any appointments made for alleged probation violations or misdemeanor appeals, in the proportion as set forth below:
Attorney Alfred P. Brandt Percentage of appointments 20%.

5) COMPENSATION AND PAYMENT

- A. The compensation for an Attorney representing assigned indigent defendants under this contract shall be by calendar year as follows:

2012	\$29,084
2013	\$29,375

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6) ADDITIONAL COMPENSATION

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7) BILLING

The Court Administrator will monitor and accumulate the statements of services rendered and ensure that cases are distributed equally between all five contracts for public defense. Attorneys may bill the County on a monthly basis equal to the incremental portion of the contract (e.g. 1/12th of an annual contract per month). The County will pay the attorneys on a monthly basis. Payment shall be based upon the year that services were rendered and not upon request for payment.

8) MINIMAL PROFESSIONAL QUALIFICATIONS

An Attorney performing duties under this Contract shall satisfy the minimum requirements for practicing law in the State of Michigan. Every attorney must have served at least two years in one of the following capacities: prosecutor, appointed public defender, or criminal defense counsel.

9) INSURANCE

A. General Liability Insurance: Attorney shall procure and maintain for the duration of this Contract, insurance. Attorney shall maintain general liability insurance of At least \$300,000 per occurrence coverage for bodily injury, personal injury and property damage claims for injuries to persons or damages to property that may arise from, or be in connection with the performance of the work hereunder by Attorney, Attorney's agents, representatives, employees, and subcontractors. A valid insurance declaration shall be on file with the Court during the term of the contract.

B. Professional Liability Insurance: Attorney shall procure and maintain professional liability insurance covering professional services in an amount of at least \$300,000 per occurrence. A valid insurance declaration shall be on file with the Court during the term of the contract.

10) PERFORMANCE OF WORK OUTSIDE OF CONTRACT

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11) INDEPENDENT CONTRACTOR

The parties agree that Attorney is an independent contractor and is not an agent or principal of Court or County. Attorney is, and shall at all times be deemed, independent and shall be wholly responsible for the manner in which she/he performs the services required by the terms of this Contract. Attorney exclusively assumes the responsibility for the acts of her/his employees as they relate to the services to be provided during the course and scope of their employment. Attorney, her/his agents and employees shall not be entitled to any rights or

privileges of employees of Court or County and shall not be considered in any manner to be employees of Court or County.

12) **SUBSTITUTION OF ATTORNEY**

The Court may appoint a replacement or reassign this contract or take any other action that the Court deems necessary should an attorney resign, be removed, or be suspended from the contract.

13) **EQUIPMENT**

Attorney shall maintain a working fax machine during the period of the contract and supply the court with a fax number.

14) **COMPLETE AGREEMENT; AMENDMENT**

This contract expresses the understanding of the parties concerning all matters covered. No addition to, or alteration of, the terms of this Contract, whether by written or verbal understanding of the parties, their officers, agents or employees, shall be valid unless made in the form of a written amendment of this Contract and formally approved by the parties.

IN WITNESS WHEREOF, the parties hereto have set their hands

12th JUDICIAL DISTRICT COURT

Hon. R. Darryl Mazur
Chief Judge

COUNTY OF JACKSON

James Shotwell
Chairman, Jackson County Board of Commissioners

ATTORNEY AT LAW

**CONTRACT FOR
COURT APPOINTED SERVICES - MISDEMEANOR DEFENDANTS
IN THE 12TH JUDICIAL DISTRICT COURT**

This contract represents the agreement between 12th Judicial District Court, hereinafter referred to as **“Court”** and the County of Jackson, hereinafter referred to as **“County”** with George D. Lyons, attorney at law, hereinafter referred to as **“Attorney”** for the representation of those who qualify as indigent defendants in the 12th District Court.

WITNESSETH:

WHEREAS, the right of all persons against whom criminal prosecutions are brought to be represented by counsel is guaranteed by the Constitution of the United States and the Constitution of the State of Michigan; and

WHEREAS, the costs and expense of such counsel in the representation of indigent defendants is a proper and lawful charge upon the Court and County of Jackson; and

WHEREAS, it is in the public interest that the Court and County of Jackson employ private counsel to render the usual and customary legal services of a public defender, and the parties desire to contract with respect thereto.

NOW, THEREFORE, the parties hereto agree as follows:

1) **SCOPE OF ATTORNEY SERVICES**

A. **General**

Attorney agrees to represent persons whom the court has deemed indigent, when appointed to do so by a judge of the Court, in accordance with the provisions of this Contract, the Request for Proposal for Court Appointed Services – Misdemeanor Defendants issued September 23, 2011, and Attorney’s proposal dated October 18, 2011, that was submitted by October 14, 2011, which are incorporated herein by this reference as Exhibits A and B, respectively. If there is any conflict between the provisions of this Contract and said Exhibits A and B, this Contract shall be controlling

B. **Specific Duties; New Cases**

Attorney agrees to represent such persons in and regarding misdemeanor actions commenced on or after the effective date of this contract

C. **Pending Cases; Transition**

Attorney also agrees to represent such persons, in and regarding misdemeanor actions which are pending as of the effective date of this contract.

D. Case; Termination

Attorney, once appointed, shall represent the defendant through all court proceedings until disposition of the charge(s) for which he or she was appointed at the district court level. In the event the defendant wishes to exercise an appeal of right, the Attorney shall prepare and file the appeal paperwork. Once the appeal has been filed, a new appointment will be made.

E. Conflict; Scheduling

The Court and Attorney, recognizing that conflicts in schedules may arise, will make a reasonable attempt to accommodate each other in that regard.

F. Conflicts of Interest; Defendant or other interested party

In the event the Attorney has a conflict of interest that prevents him/her from representing any person pursuant to this contract, it shall be her/his duty to advise the chief judge or court administrator of the nature of the conflict.

G. Conflict of Interest; Judges and/or Court

This agreement will be suspended as to any attorney, upon a vote of the majority of the judges, should the Attorney put himself/herself in a position of conflict of interest with any judge and/or the Court. The suspension will terminate when the conflict of interest ceases to exist.

H. Reporting

Attorneys will be notified of each appointment by letter from the Court. Once their representation of an indigent defendant has been completed, the attorney shall submit to the Court a signed statement so indicating that to the court.

2) CONTRACT TERM; TERMINATION

This contract shall take effect on January 1, 2012, and shall be in effect through December 31, 2013, unless earlier extended by mutual written consent or terminated. This contract may be terminated by either party by the giving of thirty (30) days written notice of termination to the other party. The Court and County may terminate the contract at any time for good cause. "Good cause" for early termination of the contract by the Court and County means any of the following actions or inactions by Attorney:

- A. Pleading no contest to, pleading guilty of or being found guilty of a felony or a crime involving moral turpitude;
- B. Persistent failure or inability to perform the duties of the Contract, whether willful or otherwise;

- C. Any disability that seriously interferes with the performance of duties and is permanent or is likely to become permanent;
- D. Willful misconduct by the attorney pertaining to Contract performance;
- E. Habitual intemperance in the use of intoxicants or drugs;
- F. Conduct prejudicial to the administration of justice, which brings the Attorney into disrepute;
- G. Continuing conflict between private practice and Contract services; and
- H. Failure to maintain good standing and active membership in State Bar.

2) CONTINUATION OF SERVICES; EXPIRATION OF TERM

Upon termination of the Contract, Attorney shall nevertheless continue to represent existing court appointed clients, unless otherwise directed by the court. This provision is subject to, and does not relieve Attorney from, providing representation to existing clients, or withdrawing from representation of existing clients, in a manner consistent with all ethical obligations and as provided for in the State Bar Rules. Services shall be provided in such cases in the same manner as provided in this Contract. Compensation for such services shall be at the rate specified in this Contract.

3) PERCENTAGE OF WORK

Attorney shall be assigned and shall accept appointments of counsel for indigent defendants made by the Court during the term of the contract, including any appointments made for alleged probation violations or misdemeanor appeals, in the proportion as set forth below: Attorney George D. Lyons Percentage of appointments 20%.

5) COMPENSATION AND PAYMENT

- A. The compensation for an Attorney representing assigned indigent defendants under this contract shall be by calendar year as follows:

2012	\$29,084
2013	\$29,375

- B. The above fee will be paid regardless of the number of charges arising out of the incident or the number of clients.

6) ADDITIONAL COMPENSATION

An attorney shall not request nor receive any additional compensation for services rendered for an indigent defendant pursuant to this contract from any other source.

7) BILLING

The Court Administrator will monitor and accumulate the statements of services rendered and ensure that cases are distributed equally between all five contracts for public defense. Attorneys may bill the County on a monthly basis equal to the incremental portion of the contract (e.g. 1/12th of an annual contract per month). The County will pay the attorneys on a monthly basis. Payment shall be based upon the year that services were rendered and not upon request for payment.

8) MINIMAL PROFESSIONAL QUALIFICATIONS

An Attorney performing duties under this Contract shall satisfy the minimum requirements for practicing law in the State of Michigan. Every attorney must have served at least two years in one of the following capacities: prosecutor, appointed public defender, or criminal defense counsel.

9) INSURANCE

A. General Liability Insurance: Attorney shall procure and maintain for the duration of this Contract, insurance. Attorney shall maintain general liability insurance of At least \$300,000 per occurrence coverage for bodily injury, personal injury and property damage claims for injuries to persons or damages to property that may arise from, or be in connection with the performance of the work hereunder by Attorney, Attorney's agents, representatives, employees, and subcontractors. A valid insurance declaration shall be on file with the Court during the term of the contract.

B. Professional Liability Insurance: Attorney shall procure and maintain professional liability insurance covering professional services in an amount of at least \$300,000 per occurrence. A valid insurance declaration shall be on file with the Court during the term of the contract.

10) PERFORMANCE OF WORK OUTSIDE OF CONTRACT

No work of any kind shall be accepted which would conflict with Attorney's performance of services as required pursuant to this Contract.

11) INDEPENDENT CONTRACTOR

The parties agree that Attorney is an independent contractor and is not an agent or principal of Court or County. Attorney is, and shall at all times be deemed, independent and shall be wholly responsible for the manner in which she/he performs the services required by the terms of this Contract. Attorney exclusively assumes the responsibility for the acts of her/his employees as they relate to the services to be provided during the course and scope of their employment. Attorney, her/his agents and employees shall not be entitled to any rights or

privileges of employees of Court or County and shall not be considered in any manner to be employees of Court or County.

12) **SUBSTITUTION OF ATTORNEY**

The Court may appoint a replacement or reassign this contract or take any other action that the Court deems necessary should an attorney resign, be removed, or be suspended from the contract.

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12th JUDICIAL DISTRICT COURT

Hon. R. Darryl Mazur
Chief Judge

COUNTY OF JACKSON

James Shotwell
Chairman, Jackson County Board of Commissioners

ATTORNEY AT LAW

**CONTRACT FOR
COURT APPOINTED SERVICES - MISDEMEANOR DEFENDANTS
IN THE 12TH JUDICIAL DISTRICT COURT**

This contract represents the agreement between 12th Judicial District Court, hereinafter referred to as “**Court**” and the County of Jackson, hereinafter referred to as “**County**” with Bruce Clark, attorney at law, hereinafter referred to as “**Attorney**” for the representation of those who qualify as indigent defendants in the 12th District Court.

WITNESSETH:

WHEREAS, the right of all persons against whom criminal prosecutions are brought to be represented by counsel is guaranteed by the Constitution of the United States and the Constitution of the State of Michigan; and

WHEREAS, the costs and expense of such counsel in the representation of indigent defendants is a proper and lawful charge upon the Court and County of Jackson; and

WHEREAS, it is in the public interest that the Court and County of Jackson employ private counsel to render the usual and customary legal services of a public defender, and the parties desire to contract with respect thereto.

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- F. Conduct prejudicial to the administration of justice, which brings the Attorney into disrepute;
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12th JUDICIAL DISTRICT COURT

Hon. R. Darryl Mazur
Chief Judge

COUNTY OF JACKSON

James Shotwell
Chairman, Jackson County Board of Commissioners

ATTORNEY AT LAW

2012
Enterprise Fund Budget
(11/21/11)

		2012
		BUDGET
		11/21/11
	Revenue	
401.000	Revenue from other (scrap sales)	\$ 17,550
460.000	Revenue from tipping fees	\$ 6,641,005
652.010	Revenue from electric sales (Consumers)	\$ 817
653.020	Revenue from Energy sales	\$ 2,400,000
664.000	Revenue from interest	\$ 3,000
	Revenue from Misc.	\$ 100
	Total Revenue	\$ 9,062,472
.03	Expense	
852.000	Central Services Allocation	\$ 98,706
705.000	Salaries Part Time	\$ 14,000
000.000	Benefits	\$ 3,000
728.000	Office Expenses & Supplies	\$ 700
728.020	Bank Charges (Letter of credit for LF)	\$ 7,800
801.100	VWNA Operating and Maintenance	\$ 4,421,435
801.120	MSW Disposal Expense	\$ 707,130
801.125	Other Disposal Expense	\$ 255,354
801.130	Ash Disposal Expense	\$ 495,620
802.010	Accounting Services	\$ 5,150
805.010	Licenses	\$ 15,450
805.030	Laboratory fees (Air Monitoring)	\$ 10,000
805.040	Laboratory Fees (Other Testing)	\$ 1,030
810.000	Attorney Services	\$ 10,000
812.000	Telephone Service	\$ -
802.001	Household Hazardous Waste Collection	\$ -
802.002	Environmental Education	\$ -
921.000	Lights, Water, & Sewer	\$ 1,030
922.000	Fuel (Natural Gas)	\$ 75,000
932.000	Maintenance of Equipment	\$ 325,000
959.000	Misc.	\$ 5,150
000.000	Engineering	\$ 55,000
000.000	Contingency	\$ -
995.000	Interest on Bonds & Delinquent Tax Fund	\$ 77,790
	Total Expenses	\$ 6,590,345
	Capital	
000.000	Bond Principal Payment	\$ 1,790,000
000.000	Delinquent Tax Fund Loan Principal Payment	\$ 246,796
115.130	Addition to Spare Parts Inventory	\$ 50,000
000.000	Landfill Closure	\$ 10,000
000.020	Landfill Post Closure Final Cover Maintenance	\$ 5,000
805.020	Landfill Post Closure Groundwater Monitoring	\$ 50,000
921.020	Landfill Post Closure Leachate Disposal	\$ 20,000
136.000	JCRRF Capital Improvements	\$ 295,000
	Total Capital	\$ 2,466,796
	Total Expenses and Capital Expenditures	\$ 9,057,141
	Cash Flow	\$ 5,331

2012
Enterprise Fund Budget
(11/21/11)

		2012	2011	2011	Increase	Increase	Increase	Increase
		BUDGET	BUDGET	PROJECTION	From 2011	From 2011	From 2011	From 2011
		11/21/11	10/06/10	11/21/11	Budget	Budget	Projection	Projection
					\$	%	\$	%
	Revenue							
401.000	Revenue from other (scrap sales)	\$ 17,550	\$ 17,550	\$ 16,951	\$ -	0.0%	\$ 599	3.5%
460.000	Revenue from tipping fees	\$ 6,641,005	\$ 6,593,705	\$ 6,641,005	\$ 47,300	0.7%	\$ -	0.0%
652.010	Revenue from electric sales (Consumers)	\$ 817	\$ -	\$ 817	\$ 817		\$ -	0.0%
653.020	Revenue from Energy sales	\$ 2,400,000	\$ 2,400,000	\$ 2,400,000	\$ -	0.0%	\$ -	0.0%
664.000	Revenue from interest	\$ 3,000	\$ 3,500	\$ 2,897	\$ (500)	-14.3%	\$ 103	3.6%
	Revenue from Misc.	\$ 100	\$ 100	\$ 100	\$ -	0.0%	\$ -	0.0%
	Total Revenue	\$ 9,062,472	\$ 9,014,855	\$ 9,061,770	\$ 47,617	0.5%	\$ 702	0.0%
.03	Expense							
852.000	Central Services Allocation	\$ 98,706	\$ 104,775	\$ 104,775	\$ (6,069)	-5.8%	\$ (6,069)	-5.8%
705.000	Salaries Part Time	\$ 14,000	\$ 14,137	\$ 13,884	\$ (137)	-1.0%	\$ 116	0.8%
000.000	Benefits	\$ 3,000	\$ 2,667	\$ 2,957	\$ 333	12.5%	\$ 43	1.5%
728.000	Office Expenses & Supplies	\$ 700	\$ 700	\$ 518	\$ -	0.0%	\$ 182	35.1%
728.020	Bank Charges (Letter of credit for LF)	\$ 7,800	\$ 7,800	\$ 8,664	\$ -	0.0%	\$ (864)	-10.0%
801.100	VWNA Operating and Maintenance	\$ 4,421,435	\$ 4,421,435	\$ 4,421,435	\$ -	0.0%	\$ -	0.0%
801.120	MSW Disposal Expense	\$ 707,130	\$ 733,434	\$ 707,130	\$ (26,304)	-3.6%	\$ -	0.0%
801.125	Other Disposal Expense	\$ 255,354	\$ 356,458	\$ 255,354	\$ (101,104)	-28.4%	\$ -	0.0%
801.130	Ash Disposal Expense	\$ 495,620	\$ 394,538	\$ 495,620	\$ 101,082	25.6%	\$ -	0.0%
802.010	Accounting Services	\$ 5,150	\$ 5,150	\$ 3,000	\$ -		\$ 2,150	
805.010	Licenses	\$ 15,450	\$ 15,450	\$ 9,349	\$ -	0.0%	\$ 6,101	65.3%
805.030	Laboratory fees (Air Monitoring)	\$ 16,000	\$ 16,000	\$ 9,200	\$ -	0.0%	\$ 6,800	73.9%
805.040	Laboratory Fees (Other Testing)	\$ 1,030	\$ 1,030	\$ 1,560	\$ -	0.0%	\$ (530)	-34.0%
810.000	Attorney Services	\$ 10,000	\$ 10,000	\$ -	\$ -	0.0%	\$ 10,000	
812.000	Telephone Service	\$ -	\$ -	\$ -	\$ -		\$ -	
802.001	Household Hazardous Waste Collection	\$ -	\$ -	\$ -	\$ -		\$ -	
802.002	Environmental Education	\$ -	\$ -	\$ -	\$ -		\$ -	
921.000	Lights, Water, & Sewer	\$ 1,030	\$ 1,030	\$ 1,079	\$ -	0.0%	\$ (49)	-4.5%
922.000	Fuel (Natural Gas)	\$ 75,000	\$ 90,000	\$ 64,076	\$ (15,000)	-16.7%	\$ 10,924	17.0%
932.000	Maintenance of Equipment	\$ 325,000	\$ 325,000	\$ 517,474	\$ -	0.0%	\$ (192,474)	-37.2%
959.000	Misc.	\$ 5,150	\$ 5,150	\$ -	\$ -	0.0%	\$ 5,150	
000.000	Engineering	\$ 55,000	\$ 55,000	\$ 31,800	\$ -	0.0%	\$ 23,200	73.0%
000.000	Contingency	\$ -	\$ -	\$ -	\$ -		\$ -	
995.000	Interest on Bonds & Delinquent Tax Fund	\$ 77,790	\$ 147,185	\$ 147,186	\$ (69,395)	-47.1%	\$ (69,396)	-47.1%
	Total Expenses	\$ 6,590,345	\$ 6,706,938	\$ 6,795,061	\$ (116,593)	-1.7%	\$ (204,716)	-3.0%
	Capital							
000.000	Bond Principal Payment	\$ 1,790,000	\$ 1,750,000	\$ 1,750,000	\$ 40,000	2.3%	\$ 40,000	2.3%
000.000	Delinquent Tax Fund Loan Principal Payment	\$ 246,796	\$ 241,593	\$ 241,593	\$ 5,203	2.2%	\$ 5,203	2.2%
115.130	Addition to Spare Parts Inventory	\$ 50,000	\$ 50,000	\$ 125,395	\$ -	0.0%	\$ (75,395)	-60.1%
000.000	Landfill Closure	\$ 10,000	\$ 10,000	\$ -	\$ -	0.0%	\$ 10,000	
000.020	Landfill Post Closure Final Cover Maintenance	\$ 5,000	\$ 5,000	\$ 2,000	\$ -	0.0%	\$ 3,000	150.0%
805.020	Landfill Post Closure Groundwater Monitoring	\$ 50,000	\$ 50,000	\$ 49,793	\$ -	0.0%	\$ 207	0.4%
921.020	Landfill Post Closure Leachate Disposal	\$ 20,000	\$ 20,000	\$ 29,028	\$ -	0.0%	\$ (9,028)	-31.1%
136.000	JCRRF Capital Improvements	\$ 295,000	\$ 165,000	\$ 189,596	\$ 130,000	78.8%	\$ 105,404	55.6%
	Total Capital	\$ 2,466,796	\$ 2,291,593	\$ 2,387,405	\$ 175,203	7.6%	\$ 79,391	3.3%
	Total Expenses and Capital Expenditures	\$ 9,057,141	\$ 8,998,531	\$ 9,182,466	\$ 58,610	0.7%	\$ (125,325)	-1.4%
	Cash Flow	\$ 5,331	\$ 16,324	\$ (120,696)	\$ (10,993)	-67.3%	\$ 126,027	-104.4%

Resolution (12-11.42)

Adopting the Jackson County Hazard Mitigation Plan

WHEREAS, the Jackson County Board of Commissioners recognizes the threat that natural, social, and technological hazards pose to people and communities and that undertaking hazard mitigation actions will reduce the potential harm to people and property from future hazard occurrences; and

WHEREAS, Jackson County has developed a multi-jurisdictional hazard mitigation plan, under the jurisdiction of the Jackson County Community Planning Committee, that includes all hazards to which the county is susceptible per Section 322 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act; and

WHEREAS, Jackson County has been assessed for susceptibility to all hazards; and

WHEREAS, Jackson County has developed goals, objectives, and strategies to mitigate against the hazards that have been identified in the county; and

WHEREAS, Jackson County has identified and analyzed mitigation measures; and

WHEREAS, an adopted hazard mitigation plan is required as a condition of future funding for various Federal Emergency Management Agency (FEMA) disaster mitigation programs.

NOW, THEREFORE BE IT RESOLVED, that the Jackson County Board of Commissioners hereby adopts the Jackson County Hazard Mitigation Plan, and intends to implement the actions prescribed within that document.

James E. Shotwell, Jr., Chairman
Jackson County Board of Commissioners
December 13, 2011

Region 2 Planning Commission

Serving Hillsdale, Jackson and Lenawee Counties

TO: County Affairs and Agencies Committee
Board of County Commissioners

FROM: Timothy Anderson
Principal Planner

RE: Approval of Jackson County Hazard Mitigation Plan

DATE: November 23, 2011

REQUEST: Resolution adopting the Jackson County Hazard Mitigation Plan (template provided)

I. Background

Several years ago, the Region 2 Planning Commission received a grant from the Federal Emergency Management Agency (FEMA) to develop a hazard mitigation plan for Jackson County. The purpose of a hazard mitigation plan is to reduce the impacts of those natural and technological hazards that have the greatest potential to impact the community if they should strike. From FEMA's point-of-view, mitigating the potential impacts of hazards before an event occurs reduces the potential physical and financial impacts of the hazard.

What is the benefit for Jackson County? An approved hazard mitigation plan makes Jackson County and its municipalities eligible for hazard mitigation grant funds from FEMA. These funds can be used to reduce the threats that hazards pose to county residents. Examples of hazard mitigation projects include safe rooms in schools in the event of severe weather, tornado sirens, weather radios, and warming/cooling shelters for extreme temperature events.

R2PC staff involved the Jackson County Community Planning Committee which played an important role in the development of the Plan. The Michigan State Police Emergency Management Division provided guidance to the Committee and R2PC staff during the development of the plan.

Based on the local hazard event history and other factors, the plan identified the following as the top hazards having the potential to have the greatest effect on Jackson County:

1. Energy emergencies
2. Public health emergencies
3. Ice storms
4. Snow storms
5. Structural fires
6. Tornadoes
7. Civil disturbances

The Plan lists possible mitigation measures to address each of these hazards.

Additional background regarding the identification of these hazards, goals, and plan implementation can be found in the attached Executive Summary.

II. Current Situation

The Federal Emergency Management Agency (FEMA) recently completed their review of the Jackson County Hazard Mitigation Plan. Their review was favorable and FEMA awaits the County adoption of a resolution of plan approval.

III. Analysis

Adoption of the Hazard Mitigation Plan will make Jackson County eligible for funding under FEMA's Hazard Mitigation Grant program. Local units of government may also adopt the Plan which would also make them eligible grantees.

There is no cost associated with adopting the Hazard Mitigation Plan. If at some point in the future the County applies for a Hazard Mitigation Grant, a 25% match is normally required.

IV. Alternatives

FEMA's Hazard Mitigation program is unique in that it attempts to prevent potential hazard prior to the occurrence of an event. This approach is generally believed be more effective and potentially less costly than dealing with hazards after they occur.

V. Recommendation

Region 2 Planning Commission staff recommends adoption of the Resolution Adopting the Jackson County Hazard Mitigation Plan.

Attachments:

1. Draft Resolution Adopting the Jackson County Hazard Mitigation Plan
2. Executive Summary of Jackson County Hazard Mitigation Plan

EXECUTIVE SUMMARY

JACKSON COUNTY HAZARD MITIGATION PLAN

The **Jackson County Hazard Mitigation Plan** was created by the Jackson County Community Planning Committee to protect the health, safety, and economic interests of the residents and businesses of Jackson County. The purpose of the Plan is to reduce the potential impacts of natural and technological hazards through hazard mitigation planning, awareness, and implementation. The Plan serves as the foundation for hazard mitigation activities and actions within Jackson County.

Implementation of recommendations within the Plan will reduce the potential for loss of life, destruction of property, and economic losses due to natural and technological hazards. The Plan provides a path toward continuous, proactive reduction of vulnerability to hazards which result in repetitive and oftentimes severe social, economic and physical damage. The ideal end state is full integration of hazard mitigation concepts into day-to-day governmental and business functions and management practices.

This Plan employs a broad perspective in examining multi-hazard mitigation activities and opportunities in Jackson County. Emphasis is placed on hazards which have resulted in threats to the public health, safety and welfare, as well as the social, economic and physical fabric of the community. The Plan addresses such hazards as floods, tornadoes, windstorms, winter storms, forest fires, structural fires, hazardous material incidents, and secondary technological hazards which result from natural hazard events. Each hazard is analyzed from a historical perspective, evaluated for potential risk, and considered for possible mitigative action. The Plan also lays out the legal basis for planning and the tools to be used for implementation.

Plan Contents

The Plan contains many of the same elements that you might find in other community planning documents. In accordance with a format developed by FEMA, the Jackson County Hazard Mitigation Plan includes a community profile; hazard identification; goals and objectives; mitigation strategies; plan implementation; and plan monitoring.

What are the Hazards?

Using six rating criteria, over thirty potential hazards were analyzed. ***Though it was found that Jackson County is a very safe place to live***, several potential hazards were identified. The following seven hazards were identified as being the most significant in terms of potential to occur and to do damage in Jackson County (listed in order of priority):

1. Energy emergencies
2. Public health emergencies
3. Ice storms
4. Snow storms
5. Structural fires
6. Tornadoes
7. Civil disturbances

JACKSON COUNTY HAZARD MITIGATION PLAN

EXECUTIVE SUMMARY

Goals

The following hazard mitigation goals were established by the Jackson Community Planning Committee:

- ☐ *Guide future development to assure a high quality, safe environment.*
- ☐ *Improve the transportation system to promote safety and efficiency.*
- ☐ *Protect Jackson County's natural environment.*
- ☐ *Strengthen and diversify Jackson's economy safely and efficiently.*
- ☐ *Maintain a safe community and protect property.*
- ☐ *Protect and preserve the housing stock of the community.*

Plan Implementation

A number of entities were identified as plan implementation agents. Given the nature of the most significant hazards, local units of government were identified as important players in the implementation program.

Other participating agencies include the Jackson County Health Department, the Jackson County Sheriff's Dept., the Community Action Agency, FEMA, the City of Jackson Public Works Dept., the Jackson Community Development Dept., MDOT, the Jackson County Department on Aging, and the Jackson County Road Commission.

What's Next?

The plan has been given administrative approval by the Michigan State Police Emergency Management Division and FEMA. With FEMA approval, the County Board of Commissioners is asked to adopt by resolution the Hazard Mitigation Plan.

Upon the approval of the Board of Commissioners, local units of government in Jackson County will also be asked to adopt the Plan. Approving the Plan will make communities eligible to apply for hazard mitigation funding from FEMA and cost nothing.

Jackson County, Michigan Hazard Mitigation Plan

Prepared by the Region 2 Planning Commission
for the Jackson County Board of Commissioners
and Local Units of Government within Jackson County
November, 2011

Table of Contents

Introduction.....	1
Plan Preparation	7
Staff Involvement	8
Jackson Community Planning Committee	8
Local Units of Government in Jackson County	9
Opportunities for Participation of Neighboring Communities	10
Coordination with the Jackson Community Comprehensive Plan	10
Local Zoning.....	11
Community Profile.....	25
Regional Location	26
Political Jurisdictions	26
Community Characteristics	28
School Populations	34
Public Safety Organizations.....	39
Seasonal Housing.....	39
Median Home Values.....	40
Future Land Use	40
Emergency Warning Sirens	44
Potential Hazards.....	47
Civil Disturbances	50
Earthquakes	51
Subsidence	52
Scrap Tire Fires.....	53
Structural Fires.....	54

Jackson County Hazard Mitigation Plan

Wildfires	55
Riverine Flooding	56
Dam Failures	64
Energy Emergencies.....	65
Significant Infrastructure Failures	66
Transportation Accidents	66
Hazardous Material Incidents: Fixed Site	68
Hazard Material Incidents: Transportation	69
Nuclear Power Plant Accidents.....	69
Oil and Natural Gas Well Accidents.....	70
Oil and Natural Gas Pipeline Accidents	72
Nuclear Attack.....	73
Sabotage/Terrorism/WMD	74
Public Health Emergencies.....	75
Drought	76
Extreme Temperatures	78
Hail	80
Lightning.....	88
Severe Wind Events.....	90
Snowstorms	112
Ice and Sleet Storms.....	122
Intra-County Summary of Hazards	127
Priority, Risk, and Vulnerability Assessment	129
Hazard Rankings and Vulnerability.....	133
Goals and Objectives	135
Hazard Mitigation Plan and Mitigation Strategies	139
Mitigation Strategies to address all Hazards.....	141

Mitigation Strategies for Specifically Identified Hazards	144
Energy Emergencies.....	144
Public Health Emergencies.....	145
Ice and Snow Storm Emergencies.....	147
Structural Fires.....	148
Tornadoes	149
Flooding.....	149
Mitigation Strategy Prioritization and Implementation	150
Responsible Lead Organization, Funding, and Time Frame for Implementation.....	153
Implementation of Strategies by Local Units of Government	155
Plan Maintenance and Implementation	157
Implementation.....	158
The Monitoring Process	158
Plan Update	159
Public Participation.....	159
Appendix A – Recommendations of the Study of a Metropolitan Fire Authority	161
Appendix B – Composite Flood Plan Map	171

Jackson County Hazard Mitigation Plan

MAPS

Political Jurisdictions	26
Jackson County Communities - Municipalities	27
Jackson County Communities - Population Density	30
Jackson County Communities – Elderly Population	31
Jackson County Communities – Disabled Population	33
Jackson County Communities – People In Poverty	35
Jackson County Communities – Speaking a Language Other than English at Home	36
Jackson County Communities – School Districts	37
Jackson County Communities – Seasonal Housing	41
Jackson County Communities - Median Home Values.....	42
Jackson County Communities – Future Land Use	43
Emergency Siren Coverage	45
Potential Sites for Civil Disturbances	50
Michigan Wildfires 1981-2000.....	55
SARA Title III Sites.....	68
Highways, Roads and Streets.....	69
County Railroads.....	69
Michigan’s Nuclear Power Facilities	70
Michigan’s Oil and Gas Wells	72
Michigan’s Oil and Gas Pipelines	72
Potential Nuclear Targets.....	73
Composite Flood Plain Map	172

Jackson County Hazard Mitigation Plan

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INTRODUCTION

Jackson County Hazard Mitigation Plan

Introduction

Purpose

In recent years with Hurricane Katrina, massive flooding, and powerful earthquakes, natural disasters have rocked our country and the world. In our own community we have experienced massive ice and snow storms, hazardous material threats on our highways, powerful electrical storms, tornadoes, and a broken gas pipeline. These natural disasters affect our economy and our quality of life. They are costly, disruptive, and they threaten health, welfare, and human life. Too often we ask, after the disaster, what could have been done to avoid, or lessen the impact of, these catastrophic events?

The Federal Emergency Management Agency (FEMA) and the Michigan State Police (MSP) Emergency Management and Homeland Security Division have partnered to encourage communities to plan for disasters, and to develop and implement mitigation strategies to reduce the likely severity of these types of disasters. They have provided grant funding for the preparation of this plan. They also provide incentives to communities through FEMA grant programs for hazard mitigation, to reduce the potential threat to life and property damage caused by natural hazards.

The Hazard Mitigation Plan is a community plan that anticipates natural, technological, and human related disasters, and identifies actions and activities to implement before disasters happen, to minimize damage to property and harm to our citizens. Hazard mitigation planning does not include emergency preparedness, nor does it include planning for emergency responses. Emergency preparedness and the planning for emergency responses are the responsibility of local law enforcement agencies, including in particular the Jackson County Sheriff Department and the Jackson County Health Department.

Hazard Mitigation Plans have a pre-disaster focus, to develop strategies and actions to implement prior to the occurrence of disaster to minimize the negative impacts associated with these disasters. Hazard mitigation planning is comprehensive, addressing multiple hazards. Plans are implementation-oriented and locally relevant. They contain both short and long-range action strategies.

Introduction

Our community faces a wide range of potential hazards. They include the following:

<ul style="list-style-type: none">× Civil Disturbances× Earthquakes× Subsidence× Scrap Tire Fires× Structural Fires× Wildfires× Riverine Flooding× Dam Failures× Energy Emergencies× Significant Infrastructure Failures× Passenger Transportation Accidents× Hazardous Material Incidents× Nuclear Power Plant Accidents	<ul style="list-style-type: none">× Oil and Natural Gas Well Accidents× Oil and Natural Gas Pipeline Accidents× Nuclear Attacks× Sabotage/Terrorism/WMD× Public Health Emergencies× Drought× Extreme Temperatures× Hail× Lightning× Severe Wind Events and Tornadoes× Snowstorms× Ice and Sleet Storms
---	---

The Hazard mitigation planning effort includes a review of these potential threats, and an analysis to determine which threats are most likely to occur in our community. The plan includes a set of strategies which address those hazards which are most likely to occur, affect a high percentage of population, have potential for severity, and have a potential for negative impacts on the economy. The preparation of a hazard mitigation plan requires the involvement of agencies and governmental departments which have responsibilities in emergency response, public utilities, elected officials of local units of government, planners, and citizens. The planning process offers opportunities for community collaboration in an attempt to maximize the effectiveness and efficiency of mitigation efforts. This

Jackson County Hazard Mitigation Plan

maximization of efficiency and effectiveness helps to ensure the maximum community benefit, and to avoid expenditures for the mitigation of hazards which have low risk to the community.

This Hazard Mitigation Plan contains the following:

A community profile, the identification of hazards and risks facing the community, an assessment of vulnerabilities, goals and objectives for the community, mitigation strategies, the hazard mitigation plan, implementation measures, and a means for monitoring the effectiveness of plan recommendations.

Just as there is a wide range of hazards which potentially face our community, there is a wide range of alternative approaches for mitigating these hazards.

We can:

1. Remove the hazard.
2. Keep the hazard away from people.
3. Keep the people away from the hazard.
4. Alter design or construction to reduce the hazard.
5. Provide warnings and awareness to the community.

Approaches to the mitigation of hazards generally fall into the following categories:

1. Corrective measures. These include the acquisition of land, the relocation of people or businesses, redevelopment of an area, or the modification of an area to mitigate potential negative impacts.
2. Public works measures.
3. Planning and regulatory measures including planning, the use of zoning, regulations and codes, disclosure, moratoria, the purchase of development rights, and open space planning.
4. Persuasion and encouragement, including the use of incentives.

Introduction

5. Public education and awareness including public information, dissemination, public relations, public hearings, surveys, and public education.

Finally, it is important that hazard mitigation planning be fully incorporated into the community planning process. Many of the mitigation strategies which may be employed to reduce the severity of hazards also contribute to community sustainability and the enhancement of quality of life. Good community planning offers the opportunity to recognize synergies whereby the collective impact of actions can result in the realization of community goals. From this context, efficiency can be obtained in the expenditure of scarce resources, with a maximization of community benefit.

Jackson County Hazard Mitigation Plan

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PLAN PREPARATION

Jackson County Hazard Mitigation Plan

Plan Preparation and Local Unit Involvement and Participation

Staff Involvement

The Jackson County Hazard Mitigation Plan was prepared by the staff of the Region 2 Planning Commission. Grant Bauman, Principal Planner, and Charles Reisdorf, Executive Director are responsible for data collection and analysis, in the preparation of the plan. Assistance in word processing was provided by Kimberly Hines. Julie Hill was responsible for budget and cost considerations.

Jackson Community Planning Committee

Oversight and the preparation of the Jackson County Mitigation Plan was provided by the Jackson Community Planning Committee at regular meetings of the Committee on February 22, and April 26, 2007; and July 24, August 28, and October 23, 2008. Meeting topics included an introduction to hazard mitigation planning and the identification and ranking of hazards, a review of possible mitigation strategies, plan goals and objectives, development and approval of strategies, and approval of the draft plan.

The Community Planning Committee consists of the chief elected officials of the County of Jackson, the City of Jackson, and Jackson County's townships and villages. Each of the Community Planning Committee members, with the exception of the Jackson City Manager and the Jackson County Administrator, are elected officials who serve their local unit of government on a part-time basis. Each has a vocation and ability to view the hazard mitigation planning process from the perspective of an employer or employee in the private sector. In addition, input to the plan development was provided by representatives of the Jackson County Sheriff's Department, the Jackson County Health department, and the Office of Emergency Management and Homeland Security, Michigan State Police.

Meetings of the Community Planning Committee are public meetings. Annual meeting schedules are posted in the lobby of the Jackson County Tower building. In addition, meetings of the Committee are posted prior to each meeting and included on the meeting calendar on the Region 2 Planning Commission web site. These postings also comply with the Michigan Open Meetings Act. Citizens are offered the opportunity to participate at each meeting,

Plan Preparation

and citizen input is desired and valued by Committee members. Citizen participation is viewed to be critical to successful plan implementation.

The draft Jackson County Hazard Mitigation Plan has been available for review on the Region 2 Planning Commission website continuously from its initial preparation. The plan has also been posted on occasion on the Jackson County website. No comments have been received as a result of these postings, however.

Citizen input was received on community goals as part of the process of preparing the Jackson Community Comprehensive Plan. Pertinent goals were incorporated into the Hazard Mitigation Plan. Four community meetings were held in the preparation of the Comprehensive Plan. An average of approximately ten citizens attended each of these meetings.

The Committee reviewed the plan, including goals and objectives and mitigation strategies, in July and October, 2008 and authorized the submission of the plan for review by the Emergency Management Division of the Michigan State Police and the Federal Emergency Management Agency.

Local Units of Government in Jackson County

In addition, local units of government in the county were contacted and requested to indicate their support for the hazard mitigation planning effort. In several cases, resolutions were adopted supporting the project.

On each occasion when the Hazard Mitigation Plan was discussed at a public meeting, citizens had the opportunity to comment on the preparation of the plan.

A listing of local units, their membership on the Community Planning Committee, and their interest in participating in the hazard mitigation program may be found on the table entitled "Local Unit Involvement and Participation". Local unit interest in the hazard mitigation plan, as described on the table, is based upon a unit's expression of interest or continuous involvement in meetings in which the draft plan was prepared.

Jackson County Hazard Mitigation Plan

Opportunities for Participation of Neighboring Communities

Opportunities have been afforded to neighboring communities for participation in plan development. The Region 2 Planning Commission is involved in the production of plans in neighboring Hillsdale and Lenawee Counties. Each of these planning efforts included a series of meetings with planning commissions.

Opportunities for participation in hazard mitigation planning have been possible at these meetings.

At meetings of emergency managers involving neighboring jurisdictions, information has been distributed (at least quarterly) by MSP Coordinators about statewide local planning efforts. In addition, hazard mitigation planning efforts have been publicized statewide. Each of these opportunities has offered a means by which to inquire and comment upon the development of Jackson County's Plan (and for Jackson officials and citizens to comment on the plans of adjacent communities). Other than the flow of information between communities, a value in itself in the planning process, actual input from adjacent communities in plan preparation was limited.

Coordination with the Jackson Community Comprehensive Plan

The preparation of the Jackson County Hazard Mitigation Plan was coordinated with the Jackson Community Com-

Jackson County Hazard Mitigation Plan LOCAL UNIT INVOLVEMENT AND PARTICIPATION Prepared December, 2008			
Local Unit	Units of Governments with Zoning Ordinances	Member Community Planning Committee	Hazard Mitigation Plan Adoption
County of Jackson		X	
City of Jackson	X	X	
Blackman Township	X	X	
Columbia Township	X	X	
Concord Township	X	X	
Grass Lake Charter Township	X	X	
Hanover Township	X	X	
Henrietta Township	X	X	
Leoni Township	X	X	
Liberty Township	X	X	
Napoleon Township	X	X	
Norvell Township	X	X	
Parma Township	X	X	
Pulaski Township	X	X	
Rives Township	X	X	
Sandstone Charter Township	X	X	
Spring Arbor Township	X	X	
Springport Township	X	X	
Summit Township	X	X	
Tompkins Township	X	X	
Waterloo Township	X	X	
Village of Brooklyn	X	X	
Village of Concord	X		
Village of Grass Lake	X	X	
Village of Hanover	X	X	
Village of Parma	X	X	
Village of Springport	X	X	

Plan Preparation

prehensive Plan. The Community Planning Committee provided oversight in the preparation of both plans. Pertinent goals contained in the Jackson Community Comprehensive Plan were included as goals in the Hazard Mitigation Plan. The Community Planning Committee intends to incorporate hazard mitigation planning into the master planning process, with the 5-year update to the plan scheduled for 2010.

The following pages reprint meeting minutes from five of the Jackson Community Planning Committee meetings from a key period in the development of this hazard mitigation plan.

Local Zoning

Jackson County has no County Zoning Ordinance. Every village and township, and the City of Jackson, has a land use plan and zoning ordinance. Each local unit administers its zoning ordinance independently.

Jackson County Hazard Mitigation Plan

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Plan Preparation

**Thursday, February 22, 2007
2nd Floor Commission Chambers
Jackson County Tower Building
4:00 p.m.**

I. CALL TO ORDER

The meeting was called to order at 4:05 p.m. by Chairman Tallis. A quorum was present.

ATTENDANCE			
Member	Alternate	Member	Alternate
Acker (P)	Hawley (P)	Kuzminski	Gaede (P)
Bamm (P)		Miltich	Spink
Day		Mitchell	
Childs		Siegart	Cryderman
DeGraaf		Snell (P)	Brockie
Dunn	Worden (P)	Stormont (P)	Harshbarger
Griffin		Surbrook (P)	Alyea
Hancock		Tallis (P)	Greiner
Herl		Tuttle (P)	Sterett
Huttenlocker (P)		Ulbin	Hagadorn
Jenkins	Reynolds	Walz	Nolte
Johnson (P)	Hannewald	Ward	Webb
	Phelps		

Others Present – Grant E. Bauman, R2PC and Kimberly Hines, R2PC.

II. PLEDGE OF ALLEGIANCE.

Those in attendance rose to offer the Pledge of Allegiance.

III. APPROVAL OF DECEMBER 21, 2006 MINUTES

Motion was made by Mr. Tuttle and supported by Mr. Snell to approve the minutes of the December 21, 2006 Community Planning Committee Meeting. Motion carried by unanimous voice vote.

IV. REVIEW AND PRESENTATION OF POTENTIAL DISASTER IN JACKSON COUNTY, BY GRANT E. BAUMAN, AICP, REGION 2 PLANNING COMMISSION.

Bauman spoke about the ongoing effort to develop a Hazard Mitigation Plan for Jackson County which will make participating local governments eligible to apply for hazard mitigation grants (when they become available in the State of Michigan). The first step in the process is to rank the following hazards accord-

Jackson County Hazard Mitigation Plan

ing to the risk they pose to county residents in terms of 1) how likely it is to occur, 2) the amount of people who will be affected, 3) the potential for causing death and injuries, 4) the potential for negative economic effects, and 5) public awareness of the hazard, as well as 6) any other related effects:

- **Civil Disturbances** (i.e., correctional facility uprisings; public demonstrations; and labor disputes);
- **Earthquakes and subsidence** (i.e., earthquakes and land subsidence);
- **Fire Hazards** (i.e., scrap tire fires; structural fires; and wildfires);
- **Flooding Hazards** (i.e., riparian and shoreline flooding and dam failures);
- **Energy and Utility/Infrastructure Failures** (i.e., energy emergencies, significant infrastructure failures, and transportation accidents);
- **Hazardous Materials Incidents** (i.e., fixed site and transportation-related hazardous materials incidents, nuclear power plant accidents, oil and gas well accidents, and pipeline accidents);
- **Homeland Security** (i.e., nuclear attacks, terrorism/sabotage/WMD, and public health emergencies); and
- **Extreme Weather** (i.e., drought, extreme temperatures, thunderstorm effects (i.e., hail, lightning, severe winds, and tornadoes), and severe winter weather (i.e., snowstorms and ice and sleet storms)).

Bauman reviewed a ranked listing of the hazards prepared by R2PC staff and requested any desired changes. The Committee came to a consensus on the following listing of the top seven hazards posing a risk to the residents and businesses of Jackson County:

TOP HAZARDS	
#1	ENERGY EMERGENCIES
#2	PUBLIC HEALTH EMERGENCIES
#3	SNOW STORMS
#3	ICE AND SLEET STORMS
#5	STRUCTURAL FIRES
#6	TORNADOES
#7	CIVIL DISTURBANCES

V. PUBLIC COMMENT.

No public comment was offered.

VI. OTHER BUSINESS.

1. Ray Snell offered an explanation of the overall job loss, created by the possibility of one of the prison facilities closing. It is estimated that there will approximately 50 jobs lost with another 150 relocating to other communities. It is also estimated that 20,000 prisoners will receive an early release.

Plan Preparation

2. The next meeting of the Community Planning Committee is scheduled for Thursday, March 22, 2007.

VII. ADJOURNMENT.

Their being no further business, the meeting was adjourned at 4:55 p.m. by motion by Mr. Snell and supported by Mr. Tuttle.

Kimberly Hines
Recording Secretary

Jackson County Hazard Mitigation Plan

**Thursday,
Thursday, April 26, 2007
6th Floor Conference Room
Jackson County Tower Building
4:00 p.m.**

II. CALL TO ORDER

The meeting was called to order at 4:05 p.m. by Vice-Chairman Herl. A quorum was present.

ATTENDANCE			
Member	Alternate	Member	Alternate
Acker (P)		Kuzminski	Gaede (P)
Bamm	Hawley (P)	Miltich	Spink
Day		Mitchell (P)	
Childs		Siegart	Cryderman
DeGraaf		Snell (P)	Brockie
Dunn	Worden (P)	Stormont (P)	Harshbarger
Griffin		Surbrook	Alyea
Hancock		Tallis	Greiner
Herl (P)	Treacher	Tuttle	Sterett
Huttenlocker (P)	Hannewald	Ulbin	Hagadorn
Jenkins		Walz	Nolte
Johnson (P)	Phelps	Ward	Webb

Others Present – Grant E. Bauman, R2PC and Kimberly Hines, R2PC.

II. PLEDGE OF ALLEGIANCE.

Those in attendance rose to offer the Pledge of Allegiance.

III. APPROVAL OF FEBRUARY 22, 2007 MINUTES.

Motion was made by Mr. Snell and supported by Mr. Worden to approve the minutes of the February 22, 2007 Community Planning Committee Meeting. Motion carried by unanimous voice vote.

IV. HAZARD MITIGATION – POSSIBLE MITIGATION STRATEGIES.

A description of possible mitigation strategies was distributed with the agenda packet. Mr. Bauman briefly discussed the strategies, and they were reviewed and discussed by the Committee. The Committee found the proposed strategies to be appropriate with one exception: The Committee feels that fire sprinklers should not be required in new single-family residences located in distances greater than

Plan Preparation

a five-minute response time from fire stations. The Committee instead suggested that information on fire sprinklers be provided to developers as an educational strategy. Mr. Bauman was directed to proceed with the completion of the Hazard Mitigation Study using mitigation strategies as presented with the exception of residential sprinklers as a requirement outside areas with five miles of a fire station.

V. OTHER BUSINESS.

Motion was made by Mr. Snell and supported by Mr. Worden to cancel the scheduled May 24, 2007 meeting of the Jackson Community Planning Committee. Motion carried by unanimous voice vote.

VI. PUBLIC COMMENT.

No public comment was offered.

VII. ADJOURNMENT.

Their being no further business, the meeting was adjourned at 4:35 p.m.

Charles C. Reisdorf
Recording Secretary

Jackson County Hazard Mitigation Plan

Thursday, July 24, 2008
2nd Floor Commission Chambers
Jackson County Tower Building
4:00 p.m.

I. CALL TO ORDER

The meeting was called to order at 4:00 p.m. by Chairman Tallis. A quorum was present.

ATTENDANCE			
Member	A - Alternate	Member	Alternate
Acker		Kuzminski	Gaede (P)
Bamm	Hawley (P)	Miltich	Spink
Day (P)	Butler	Mitchell	
Childs		Cardenas (P)	Cryderman
Fortress	Gardner (P)	Snell	
Dunn (P)	Worden (P)	Stormont	Harshbarger
Griffin		Surbrook	Alyea
Hancock (P)		Tallis (P)	Greiner
Herl (P)	Treacher	Tuttle (P)	Sterett
Huttenlocker (P)	Hannewald	Ulbin	Hagadorn
Ludwig		Walz	Nolte (P)
Jenkins		Ward	Webb
Johnson (P)	Ballast		

Staff Present – Charles Reisdorf, R2PC

Others Present – Lt. Steve Rand, JSD; James Freeman, JC Health Dept; and Mike Sobocinski, MSP

II. PLEDGE OF ALLEGIANCE.

Those in attendance rose to offer the pledge of allegiance.

III. APPROVAL OF MARCH 27, 2008 MEETING MINUTES.

The Community Planning Committee reviewed the minutes of their meetings of March 27, 2008.

Motion was made by Ev Huttenlocher and supported by Shirley Johnson to approve the minutes of March 27, 2008 as printed. The motion carried by unanimous voice vote.

Plan Preparation

IV. HAZARD MITIGATION – PLANNING FOR SAFETY IN OUR COMMUNITY.

- A. Review of Plan progress. The Community Planning Committee received the presentation on hazard mitigation planning in Jackson County. The presentation included a definition of the term “hazard mitigation”, a description of the hazard mitigation planning process, a listing of possible hazards facing Jackson County and the prioritization of those hazards conducted in a previous meeting of the Jackson Community Planning Committee, and a discussion regarding goals and objects for the hazard mitigation plan.
- B. Approval of strategies to mitigate disasters. Those in attendance formed three groups to discuss the three highest priority hazards facing Jackson County – Energy emergencies, public health emergencies, and snow and ice storms. They reviewed possible strategies to mitigate the impact of these disasters on Jackson County. Each group made a brief presentation summarizing their discussions.

Mike Sobocinski, Lt. Steven Rand, and James Freeman set in on the group discussions for the energy, public health, and snow and ice emergencies.

V. PUBLIC COMMENT.

No public comment was offered.

VI. ADJOURNMENT.

Their being no further business, the meeting was adjourned at 5:15 p.m.

Charles C. Reisdorf
Recording Secretary

Jackson County Hazard Mitigation Plan

MINUTES JACKSON COMMUNITY PLANNING COMMITTEE

Thursday, August 28, 2008
2nd Floor Commission Chambers
Jackson County Tower Building
4:00 p.m.

I. CALL TO ORDER

The meeting was called to order at 4:00 p.m. by Chairman Tallis. A quorum was not present.

ATTENDANCE			
Member	Alternate	Member	Alternate
Acker (P)		Kuzminski	Gaede (P)
Bamm	Hawley (P)	Miltich	Spink
Day (P)	Butler	Mitchell	
Childs		Cardenas (P)	Cryderman
Fortress	Gardner (P)	Snell	
Dunn	Worden (P)	Stormont	Harshbarger
Griffin		Surbrook	Alyea
Hancock (P)		Tallis (P)	Greiner
Herl (P)	Treacher	Tuttle	Sterett
Huttenlocher	Hannewald	Ulbin	Hagadorn
Ludwig		Walz	Nolte
Jenkins		Ward	Webb
Johnson (P)	Ballast		

Staff Present – Charles Reisdorf, R2PC

Others Present – Lt. Steve Rand, JSD; James Freeman, JC Health Dept; and Brad Piros, JCSD

II. PLEDGE OF ALLEGIANCE.

Those in attendance rose to offer the pledge of allegiance.

III. APPROVAL OF JULY 24, 2008 MEETING MINUTES.

The Community Planning Committee reviewed the minutes of their meetings of July 24, 2008.

Motion was made by Victor Cardenas and supported by Cliff Herl to approve the minutes of July 24, 2008 as printed. The motion carried by unanimous voice vote.

IV. HAZARD MITIGATION – PLANNING FOR SAFETY IN OUR COMMUNITY.

A. Review of Plan progress. The staff reported that the introduction, community profile, description of potential hazards, and the priority, risk, and vulnerability assessment sections of the plan had been completed. Staff is working on the goals and objectives and mitigation strategies sections of the plan.

B. The Community Planning Committee reviewed the proposed goals for the hazard mitigation plan including the following.

- I. Guide development to assure a high quality environment.

Plan Preparation

MINUTES JACKSON COMMUNITY PLANNING COMMITTEE

2. Provide an urban environment that reflects cultural values and heritage, and is attractive and desirable.
3. Improve the transportation system to promote safety and efficiency.
4. Protect Jackson County's natural environment.
5. Strengthen and diversify Jackson's economy and promote high wage jobs.
6. Maintain a safe community and protect property.
7. Protect and preserve the housing stock of the community.

Staff is working on objective statements for each of these goals.

The Community Planning Committee was also provided a listing of possible mitigation strategies. The listing was organized in priority for the first 7 hazards identified as affecting Jackson County in their priority order. The balance of hazards which had the potential to affect the County follow in no particular order. In each case, for each hazard, a listing of at least one strategy is included. Members of the Community Planning Committee were asked to identify which strategies would help to mitigate disasters in Jackson County local units of government.

V. OTHER BUSINESS.

A question was asked regarding how township officials should handle calls regarding potential emergencies. If the threat is imminent, persons should call 911. If the call regards simply a question concerning how to handle a particular type of emergency Lt. Rand from the Jackson County Sheriff's office suggested contacting 211 for information.

VI. ADJOURNMENT.

There being no further business, the meeting was adjourned at 4:40 p.m.



Charles C. Reisdorf
Recording Secretary

Jackson County Hazard Mitigation Plan

**Thursday, October 23, 2008
2nd Floor Commission Chambers
Jackson County Tower Building
4:00 p.m.**

II. CALL TO ORDER

The meeting was called to order at 4:00 p.m. A quorum was present.

ATTENDANCE			
Member	Alternate	Member	Alternate
Acker (P)		Kuzminski	Gaede (P)
Bamm	Hawley	Miltich	Spink
Day (P)	Butler	Mitchell	
Childs		Cardenas (P)	Cryderman
Fortress	Gardner	Snell	
Dunn	Worden (P)	Stormont	Harshbarger
Griffin		Surbrook	Alyea
Hancock (P)		Tallis	Greiner
Herl (P)	Treacher	Tuttle	Sterett
Huttenlocher (P)	Hannewald	Ulbin	Hagadorn
Ludwig		Walz	Nolte
Jenkins		Ward	Webb
Johnson (P)	Ballast		

Staff Present – Charles Reisdorf, R2PC

Others Present – Lt. Steve Rand and Brad Piros, Jackson County Sheriff's Department

II. PLEDGE OF ALLEGIANCE.

Those in attendance rose to offer the pledge of allegiance.

III. APPROVAL OF JULY 24, 2008 & AUGUST 28, 2008 MEETING MINUTES.

The Community Planning Committee reviewed the minutes of their meetings of July 24 and August 28, 2008.

Motion was made by Ev Huttenlocher and supported by Victor Cardenas to approve the minutes of the July 24, and August 28, 2008 meetings. The motion passed by unanimous voice vote.

IV. REVIEW AND APPROVAL OF "HAZARD MITIGATION PLAN & MITIGATION STRATEGIES" CHAPTER OF HAZARD MITIGATION PLAN.

The Committee was provided a presentation on the plan and mitigation strategies

Plan Preparation

chapter of the Jackson County Hazard Mitigation Plan. The presentation included a set of mitigation strategies which applied generally, and mitigation strategies for each of the priority hazard areas identified by the Community Planning Committee. Following the presentation, the Committee agreed that the mitigation strategies proposed were appropriate and that the plan should be completed incorporating these strategies and submitted to the Federal Emergency Management Administration (FEMA) through the Michigan State Police Emergency Management Division for review and comment.

V. PUBLIC COMMENT.

There was no public comment; however, Committee members raised the following subjects for discussion at a future meeting of the Committee:

1. Wind Generation – Committee members discussed the ability of local units of government (due to State Pre-emption to adopt ordinances regarding wind generation. Such an ordinance exists for the City of Manistee. There's a need to study the impact on birds and bats, to address provisions for the sale of energy produced back to utilities, and to generally monitor the activities of the state and local units of government in addressing the wind generation issue.
2. The issue of pre-emption of local regulation of cell towers was discussed. There is a need for the Committee to look into the issue at a future meeting.
3. The Committee discussed financial problems affecting the Road Commission. It was suggested that we invite Ken Straub from the Jackson County Road Commission to a future meeting of the Community Planning Committee to discuss the manner. In a related matter, staff reported that the Michigan Department of Transportation has said that match funds necessary to match federal transportation planning monies would be insufficient by the year 2010.

VI. ADJOURNMENT.

Their being no further business, the meeting was adjourned at 4:40 p.m.

Charles C. Reisdorf
Recording Secretary

Jackson County Hazard Mitigation Plan

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COMMUNITY PROFILE

Jackson County Hazard Mitigation Plan

Community Profile

Regional Location

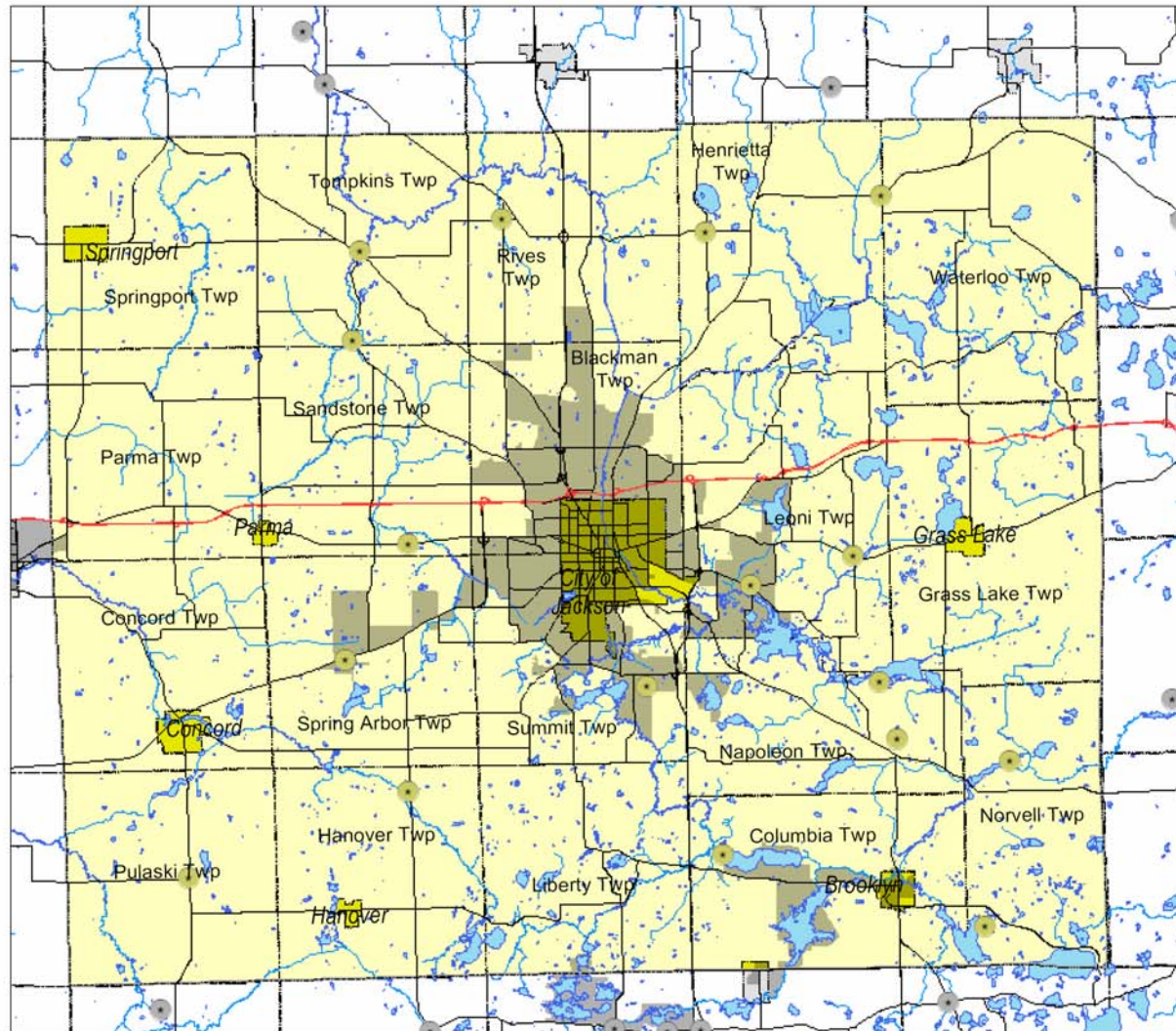
Jackson County is located in the south-central portion of the Lower Peninsula of Michigan, along the I-94 corridor and along US-127, which provides highway access to the north and south and bisects the county. Surrounding counties include Ingham to the north, Washtenaw to the east, Calhoun to the west, and Hillsdale and Lenawee to the south.

Political Jurisdictions

The county is composed of 19 townships, 6 villages, 1 city, and other small settlements. The townships and incorporated villages and the city are governed by elected boards and councils. County residents are also represented by the Jackson County Board of Commissioners. County residents are represented by 1 of the 12 commissioners serving on the governing body. The entire county is also part of Michigan District 7 of the US House of Representatives. The Townships of Parma, Sandstone, Spring Arbor, Pulaski, Hanover, Summit, and Napoleon; the City of Jackson, and the Villages of Parma, Concord, and Hanover are included in Michigan House District 64 and the rest of the county is included in District 65. The majority of the county is located in Michigan Senate District 19 although the Village of Grass Lake and the Townships of Summit, Leoni, Grass Lake, and Norvell are included in District 17.



Community Profile



Jackson County Communities

Municipalities

■ Cities & Villages

■ Townships

★ Unincorporated Settlements

Census Defined Geography

■ Urbanized Areas

Transportation Facilities

— State Highways

Source:
Center for Geographic Information,
State of Michigan

Jackson County Hazard Mitigation

Jackson County Communities									
Community	County Comm. District	MI House District	MI Senate District	US House District	Community	County Comm. District	MI House District	MI Senate District	US House District
City					Townships (continued)				
Jackson	8, 9 & 10	64	19	7	Henrietta	2	65	19	7
Villages					Leoni	2 & 3	65	17	7
Brooklyn	4 & 5	65	19	7	Liberty	5	65	19	7
Cement City	5	65	19	7	Napoleon	4	64	19	7
Concord	6	64	19	7	Norvell	4	65	17	7
Grass Lake	2	65	17	7	Parma	1	64	19	7
Hanover	5	64	19	7	Pulaski	6	64	19	7
Parma	1 & 6	64	19	7	Rives	1	65	19	7
Springport	1	65	19	7	Sandstone	6 & 11	64	19	7
Townships					Spring Arbor	5 & 6	64	19	7
Blackman	10 & 12	65	19	7	Springport	1	65	19	7
Colombia	4	65	19	7	Summit	7	64	17	7
Concord	6	65	19	7	Tompkins	1	65	19	7
Grass Lake	2	65	17	7	Waterloo	2	65	19	7
Hanover	5	64	19	7					

Community Characteristics

Jackson County was home to 158,422 people in the year 2000, according to the US Census. The official estimate for the county in 2004 was 162,973 people, indicating slow but steady growth. Urbanized areas, which are based

Community Profile

upon population density, existed around Jackson (including portions of Blackman, Leoni, Napoleon, Summit, and Rives Townships); Spring Arbor (including Spring Arbor College and the M-60 corridor); and a portion of the Irish Hills Area (including Brooklyn and the areas surrounding Lake Columbia and Clark Lake in Columbia Township). It is also interesting to note that almost $\frac{3}{4}$ of the people lived in a township rather than a city or village in 2000. The following statistics about special groups of people also help to describe the population of Jackson County.

Population Density

The average density of population in the county was 224 people per square mile (ppsm) in the year 2000. However, population density varied significantly across the county from a high of 3,272 ppsm in the City of Jackson to a low of 42-170 ppsm in the rural townships. Population density within the urban townships surrounding the City of Jackson (i.e., Blackman, Leoni, Napoleon, Spring Arbor, and Summit Townships) ranged from 214-735 ppsm. It is important to note that areas within these urban townships that are also included within the urbanized area will have a greater population density than the surrounding township. It is also important to note that there are at least 17 unincorporated settlements within the county. Each of those settlements is likely to have a denser population than the surrounding township. Population density within the county's villages ranged from 502-1,525 ppsm.

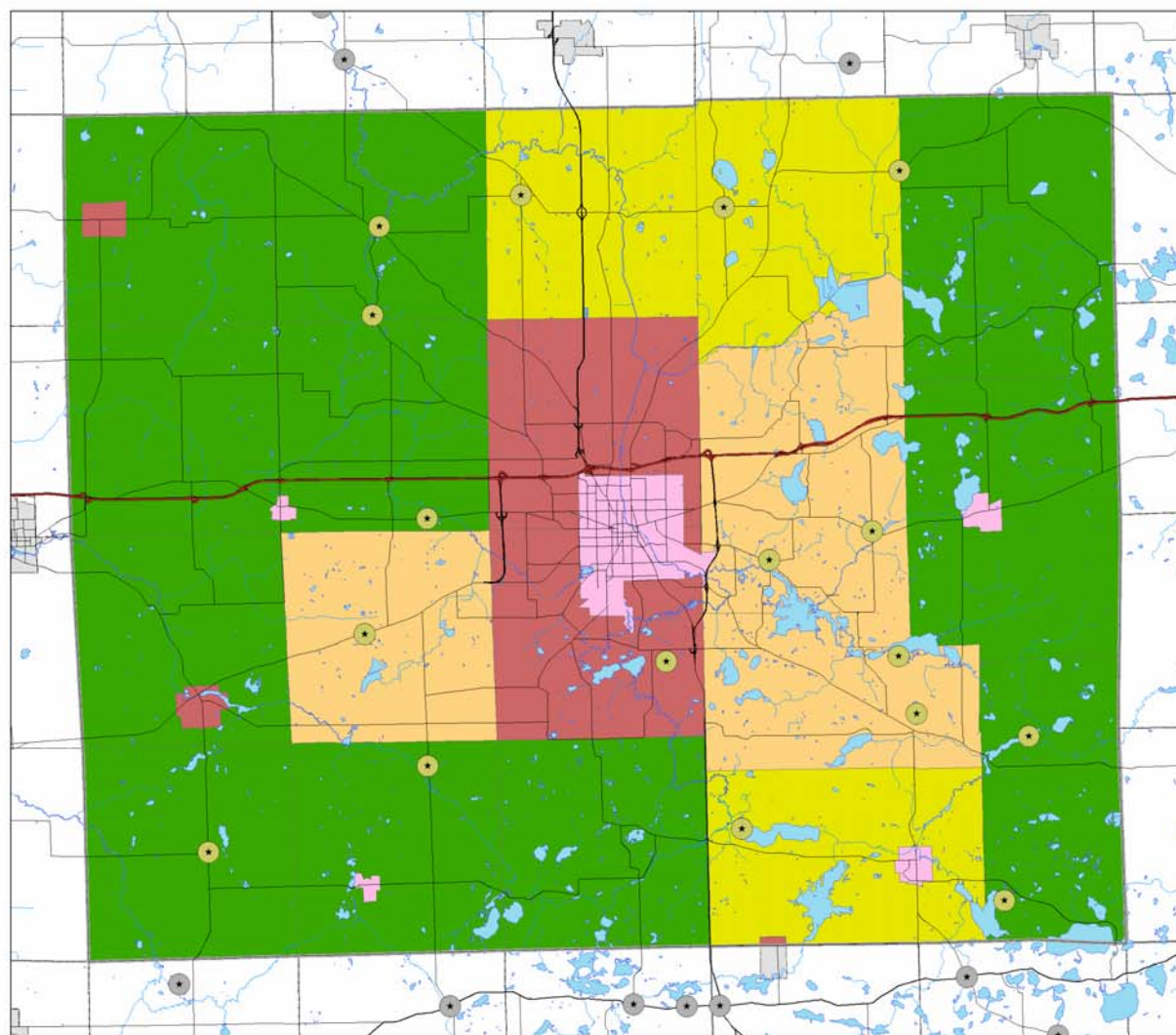
Populations with Special Needs

Several population groups within the county have special needs which must be given consideration in any serious analysis of the risks residents may have from hazards.

Elderly Residents

Fewer than 13% of Jackson County residents were at least 65 years old in the Year 2000, although this average varies widely. For example, the Village of Brooklyn (21.9%) and the Townships of Summit (17.8%) and Columbia (15.4%) had the highest ratios of elderly residents and the Village of Parma (8.7%) and the Townships of Rives (9.4%), Henrietta (9.5%), and Waterloo (9.5%) had the lowest ratios. There are at least 15 retirement/nursing homes in Jackson County, many of which are located within the Jackson Urbanized Area. The City of Jackson is also the location of Foote Health Systems, a regional hospital, and the Jackson County Medical Care Facility.

Jackson County Hazard Mitigation



Jackson County Population Density

People/Sq. Mile



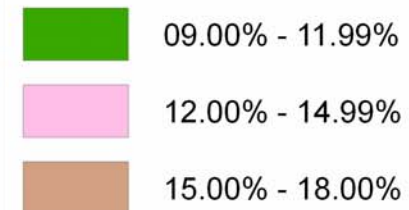
Source:
Center for Geographic Information,
State of Michigan

Community Profile

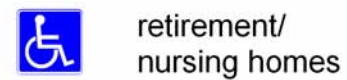
Jackson County Communities

Elderly Population

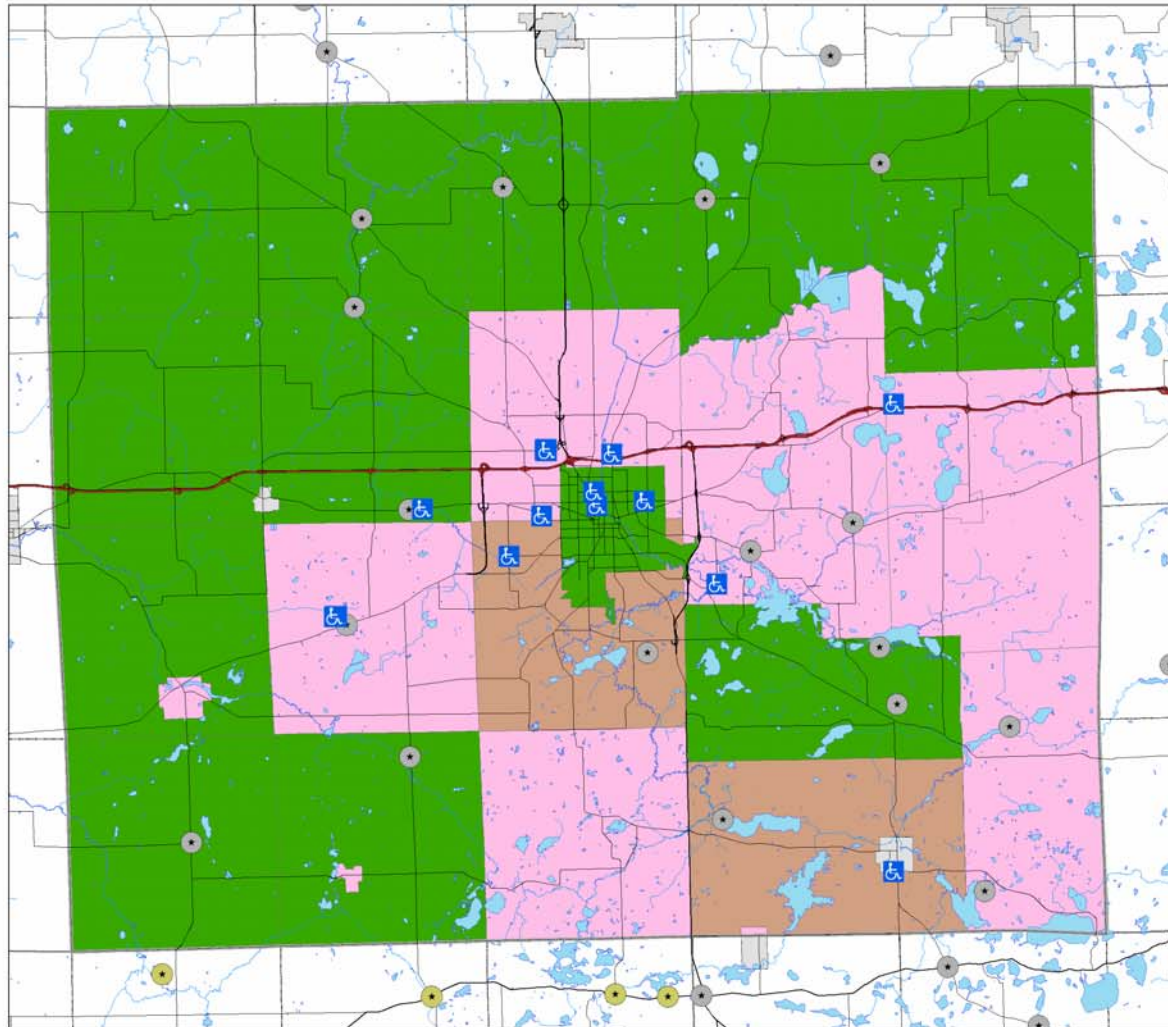
Population Over 64 Years of Age



Retirement/nursing homes



Source(s):
2000 US Census, Carepathways.com,
retirementhomes.com, and
doctordirectory.com



Jackson County Hazard Mitigation

Disabled Residents

The 2000 US Census surveyed the number of disabled people in two age groups:

- × **5-20 years of age.** Over 8% of residents between the ages of 5 and 20 were disabled in some way in the Year 2000, fairly representative of all the local governments which compose Jackson County. For example, the Townships of Parma (12.5%) and Pulaski (12.2%) had the highest ratios of disabled residents within the age group and the Village of Concord (3.5%) and the Township of Norvell (2.2%) had the lowest ratios.
- × **21-64 years of age:** Just over 19% of residents between the ages of 21 and 64 were disabled in some way in the year 2000, fairly representative of all local governments in the county. For example, Leoni Township (24.9%) and the City of Jackson (23.2%) had the highest ratios of disabled residents within the age group. The Villages of Concord (12.9%), Springport (13.1%), and Hanover (13.6%) had the lowest ratios of disabled residents in the age group.

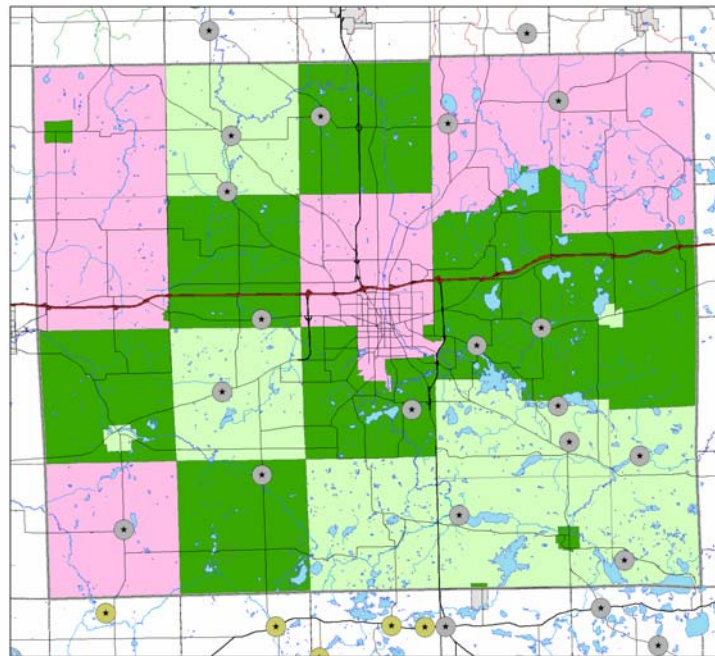
Impoverished Residents

The US Census considered 9% of Jackson County residents to have been poor in the Year 2000, although this varies greatly across the county. For example, the City of Jackson (19.6%) and the Village of Hanover (18.7%) had the highest ratios of poor residents. The Townships of Liberty (2.9%) and Grass Lake (2.3%) had the lowest ratios.

Foreign Language Speakers

Only 4% of Jackson County residents spoke a language other than English at home in the Year 2000, fairly representative of all the city villages, and townships which compose the county. For example, the Township of Blackman (6.1%) and the City of Jackson (5.7%) had the highest ratios. Pulaski Township (1.7%) and the Villages of Concord (1.7%) and Brooklyn (1.6%) had the lowest ratios.

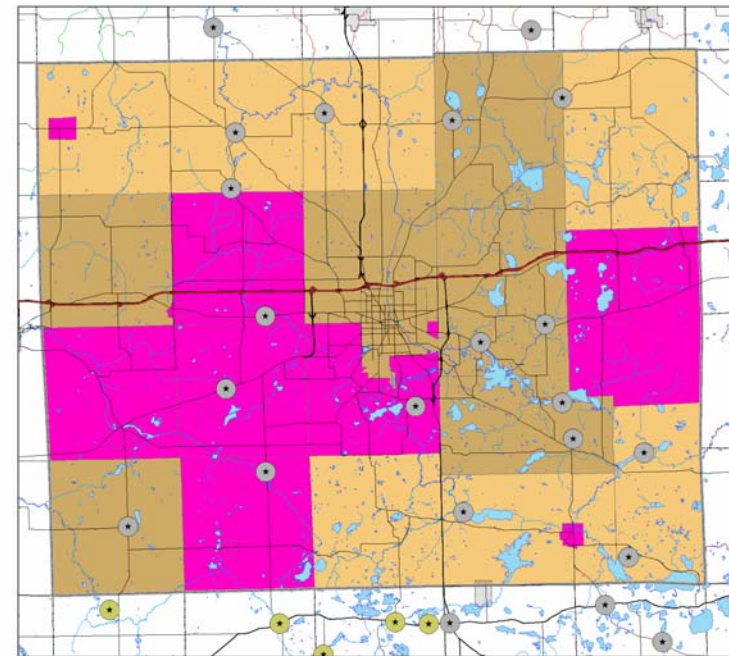
Community Profile



5-20 Years of Age

2.20% - 5.80%

5.81% - 8.40%



20-64 Years of Age

12.51% - 14.90%

8.41% - 12.50%

14.91% - 17.50%

17.51% - 24.90%

Jackson County Communities

Disabled Population

Source(s): 2000 US Census,
Center for Geographic Information,
Universal Maps, & R2PC

Jackson County Hazard Mitigation

School Populations

Children congregate daily within the school facilities located within Jackson County during the school year.

Public School Facilities

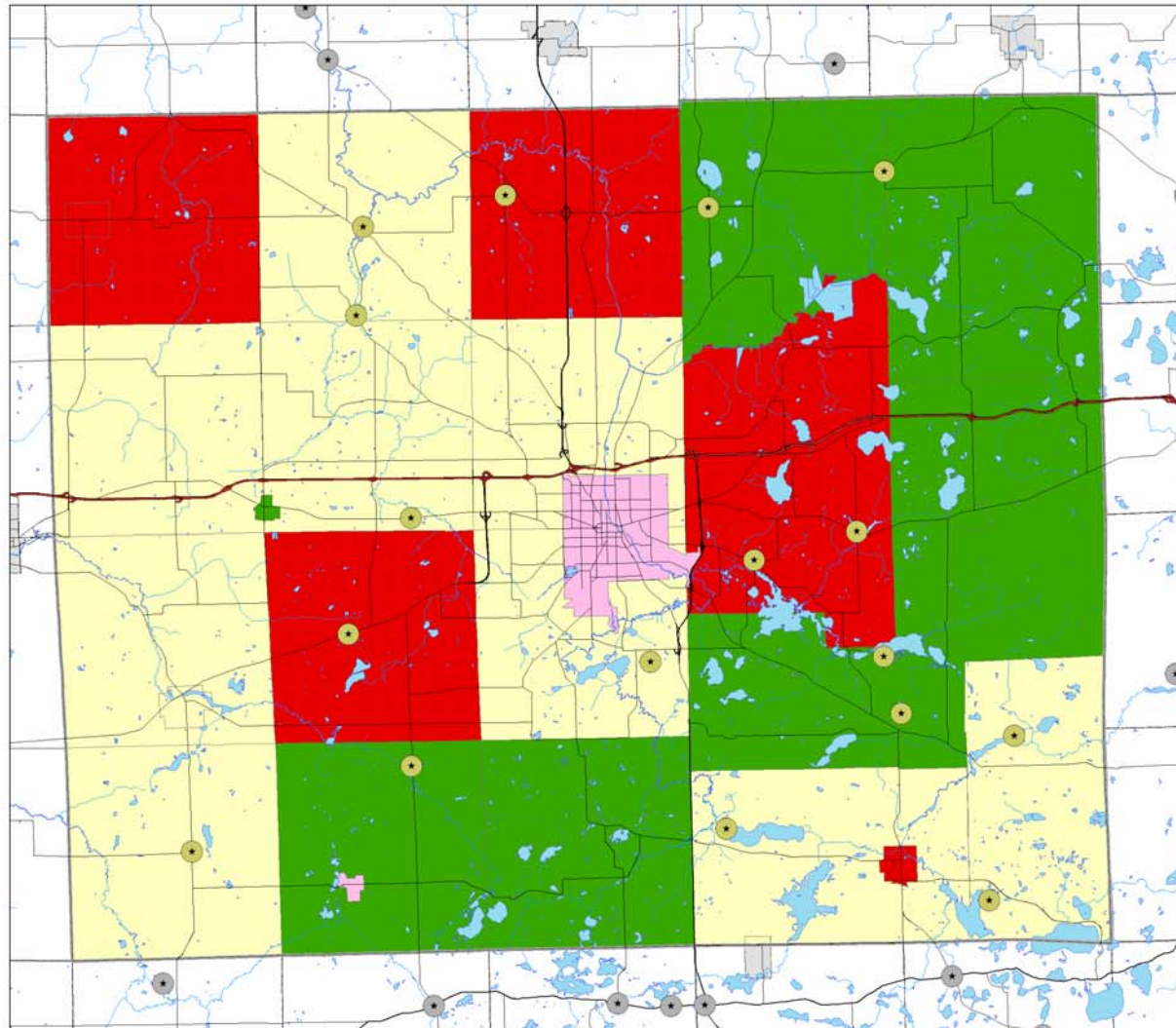
The public school facilities located within Jackson County are listed by school district:

Jackson Intermediate School District

Most of the local districts providing schools within Jackson County are part of the Jackson Intermediate School District:

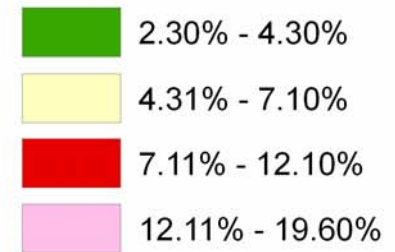
- × **Columbia School District.** Brooklyn (K-5) and Miller (K-5) elementary; Columbia Middle (6-8), Columbia Central High (9-12), and Columbia Community Education;
- × **Concord Community Schools.** Concord Elementary and Middle (K-8 located on a single campus) and Concord High (9-12);
- × **East Jackson Community Schools.** Bertha Robinson (K-5) and Memorial (K-5), East Jackson Middle (6-8), and East Jackson High (9-12);
- × **Grass Lake Community Schools.** George Long Elementary (K-6) and Grass Lake Junior/Senior High (7-12);
- × **Hanover-Horton Schools.** Hanover-Horton Elementary (K-5), Hanover-Horton Middle and High (6-12 located on a single campus);
- × **Jackson Public Schools.** Sharp Park (PK-1), TA Wilson (PK-4), Hunt (PK-6), Northeast (PK-6), Cascades (K-2), Bennett (K-5), Dibble (K-6), McCulloch (K-6), and Frost (2-6) elementary; Parkside (7-8) and Amy Firth Middle (7-9); and Jackson High (9-12);
- × **Michigan Center School District.** Arnold (PK-2), and Keicher (3-6) elementary, Michigan Center Junior and Senior High (7-12 on a single campus), and Clement School (9-12);
- × **Napoleon Community Schools.** Eby Elementary and Napoleon Middle and High Schools (K-12 on a single campus);

Community Profile



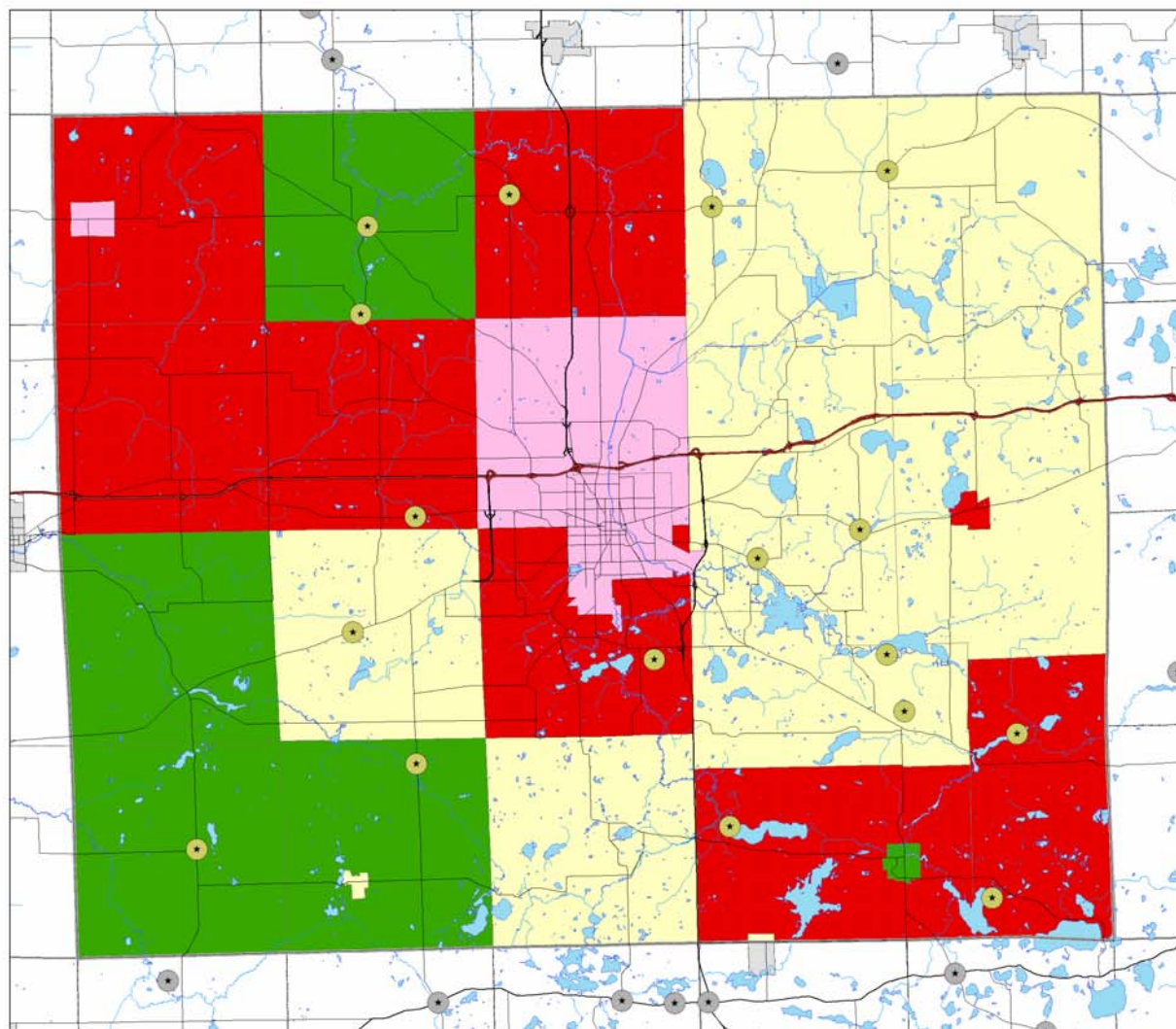
Jackson County Communities

People in Poverty



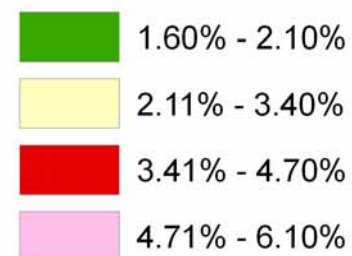
Source:
2000 US Census,
Universal Maps, & R2PC

Jackson County Hazard Mitigation



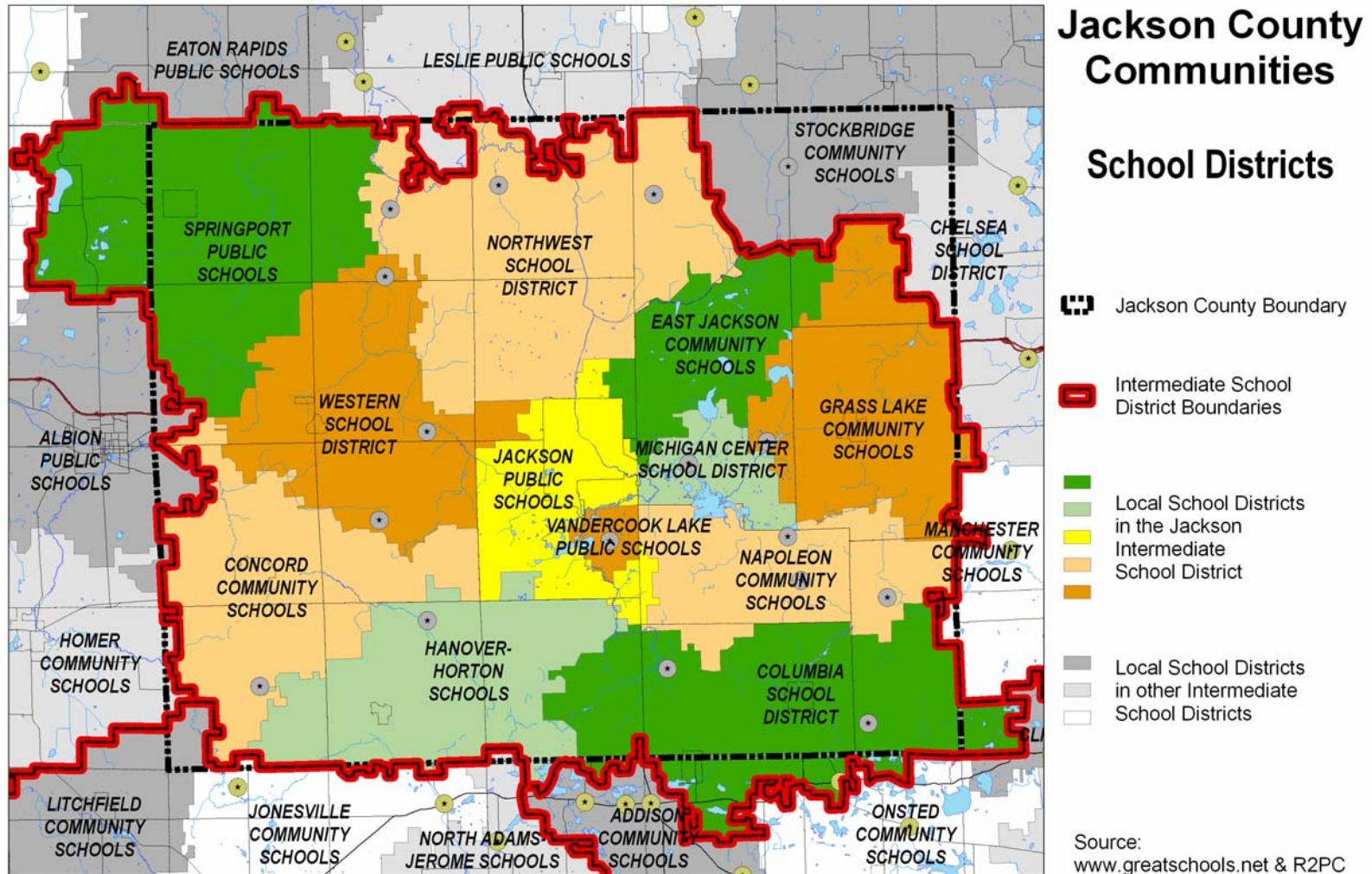
Jackson County Communities

Speaking a Language Other Than English at Home



Source:
2000 US Census,
Universal Maps, & R2PC

Community Profile



Jackson County Hazard Mitigation

- × **Northwest School District.** Flora List (PK-1) and Northwestern and Parnall (1-5) elementary, RW Kidder Middle (6-8), and Northwest High (9-12);
- × **Springport Public Schools.** Springport Elementary, Middle, and High (PK-12 on a single campus);
- × **Vandercook Lake Public Schools.** Townsend Elementary (PK-5) and Vandercook Lake High (6-12);
- × **Western School District.** Bean, Parma and Warner Elementary (K-5), Western Middle (6-8), Western High (9-12), and Western Options Center (9-12);
- × **Charter Schools.** There are 2 charter schools in Jackson County: DaVinci Institute (K-12) and Paragon Charter Academy (K-8).

Other Local School Districts

Neighboring school districts also provide access to public schools for Jackson County residents. However, only 1 of those districts provides facilities within Jackson County.

- × **Stockbridge Community Schools.** Eldon Katz (1-2).

Other neighboring districts whose boundaries penetrate into Jackson County include Leslie Public Schools, Chelsea School District, Manchester Community Schools, Addison Community Schools, North Adams-Jerome Schools, Jonesville Community Schools, Litchfield Community Schools, Homer Community Schools, and Albion Public Schools

Private School Facilities

At least 14 private schools also operate in Jackson County: Jackson Christian High (PK-12), North Sharon Christian (PK-12), Westchester Christian (PK-3), St. Mary Star of the Sea (PK-6), Trinity Lutheran (PK-8), Happy Hearts Children's Ctr. (PK-K), Jackson SDA Elementary (1-8), Loomis Park Baptist Acad. (1-10), Jackson Christian Middle (7-8), Lumen Christi High (9-12), Faith Christian Acad. (K-12), Queen of Miraculous Medal (K-6), St. John's Elementary (K-6), and St. Joseph Elementary (K-8).

Community Profile

Public Safety Organizations

Organizations that protect citizens are found throughout Jackson County.

Fire Departments.

There are 16 fire departments serving county residents: Jackson FD, Grass Lake FD, Concord-Pulaski FD, Parma-Sandstone FD, Rives-Tompkins FD, Blackman Township FD, Columbia Township FD, Hanover Township FD, Henrietta Township FD, Leoni Township FD, Liberty Township FD, Napoleon Township FD, Pulaski Township FD, Spring Arbor FD, Springport Regional FD, and Summit Township FD. Most fire stations are located in or near settlements and serve those population centers and the surrounding countryside.

EMS

The Jackson Community Ambulance (JCA) operates 10 paramedic units in Jackson County. The JCA is headquartered in the City of Jackson and maintains a substation in Spring Arbor Township.

Police Departments

County residents are served by a number of law enforcement agencies on a day-to-day basis:

- × **State Police Posts.** State Police Post #17 is located in Blackman Township.
- × **Sheriffs Office.** The County Sheriffs Office is located in Downtown Jackson.
- × **Local Police Stations.** There are 6 local police departments in the county: Jackson PD, Parma PD, Columbia Twp. PD, Napoleon Twp. PD, Spring Arbor PD, and Springport Twp. PD.

Seasonal Housing

Only 3% of Jackson County housing units were used seasonally in the Year 2000 according to the US Census. The variability among the local units of government, however, is quite dramatic. For example, a large percentage of housing units in Norvell (24.6%), Waterloo (17.5%), and Columbia (15.4%) Townships are used seasonally. In comparison, none of the housing units the Village of Parma were used seasonally. It is also

Jackson County Hazard Mitigation

important to note that 1 resort, 9 organized camps, 9 campgrounds, and 3 college campuses are scattered across the county.

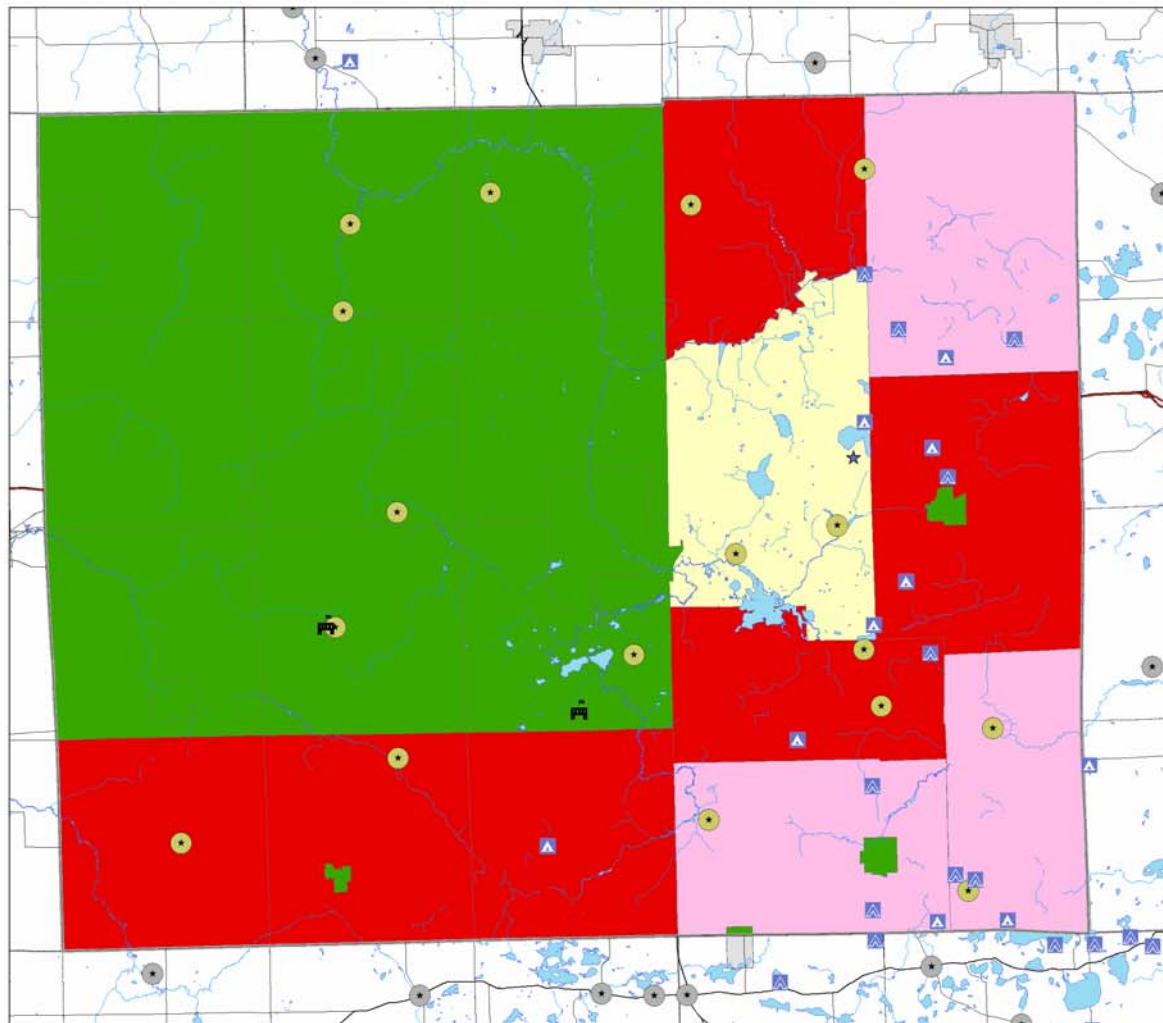
Median Home Values

The median home value in Jackson County was \$96,900 in the year 2000. Given the county's median home value and a total of 34,639 occupied housing units, the housing stock within Jackson County was valued at \$3.3 billion. The variability in housing values between the local units of government, however, was quite dramatic. For example, the median home values within Waterloo (\$151,200), Columbia (\$141,700), Liberty (\$137,500), Grass Lake (\$136,100), and Spring Arbor (\$128,500) Townships were all over \$125,000. In comparison, the median home values in the City of Jackson (\$64,300) and the Villages of Springport (\$67,600) and Hanover (\$73,800) were all under \$75,000. It is also interesting to note that the value of the occupied housing stock in Blackman, Leoni, and Summit Townships and the City of Jackson (\$1.8 billion) equals over half (53.9%) of the value of all occupied housing units in the county.

Future Land Use

Jackson County's future land use plan places concentrated residential, commercial, and industrial land uses around preexisting cities and villages, ponds and lakes, as well as some of the unincorporated settlements located along major roadways. However, scattered residential development already occurs along many of the roadways in the county—whether state highway, county primary road, or gravel lane—creating greatly dispersed ribbons of low density residential development.

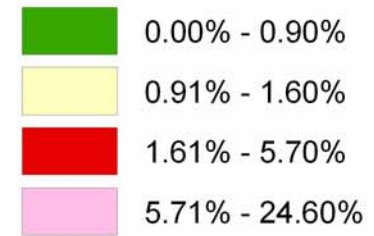
Community Profile



Jackson County Communities

Seasonal Housing

Housing Units Used Seasonally

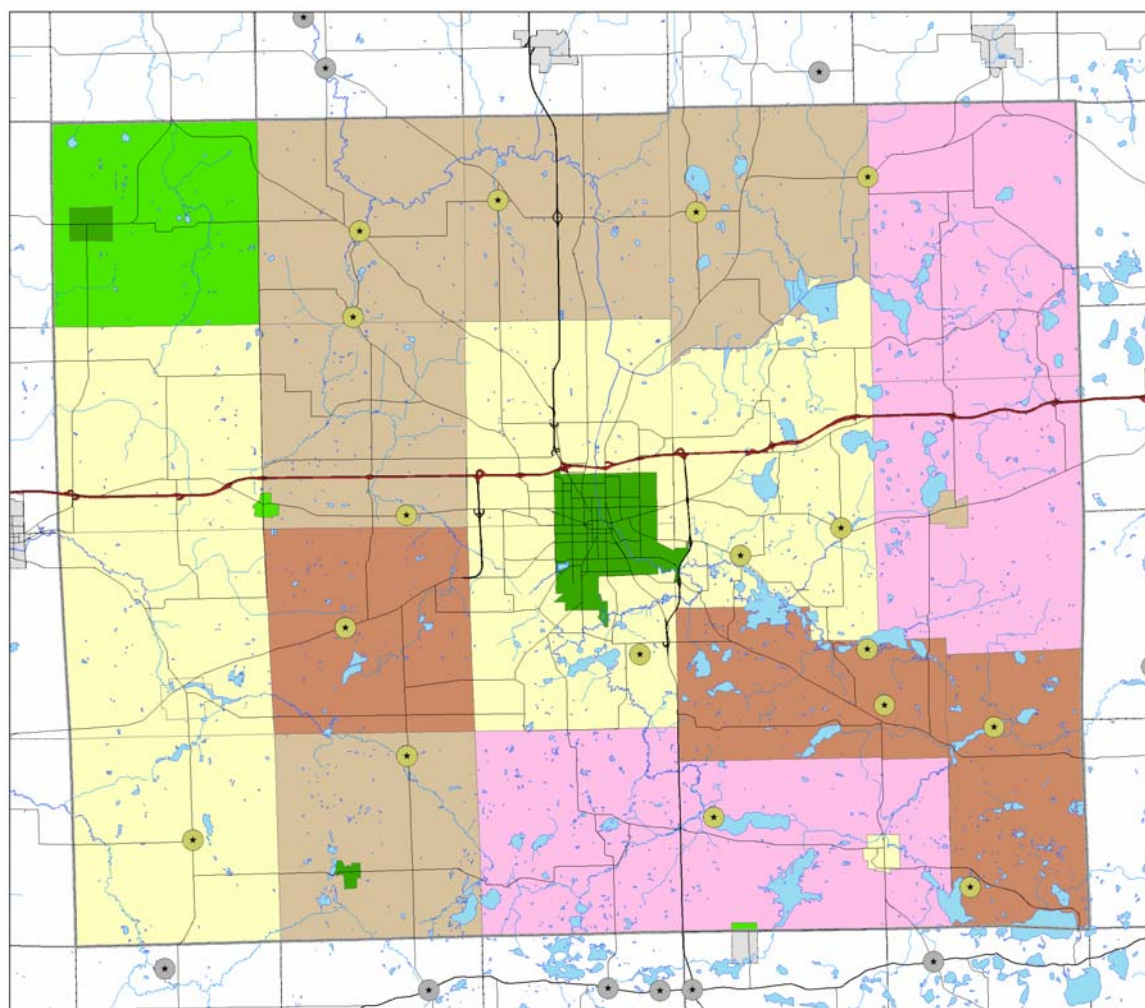


Seasonal Settlements



Source:
2000 US Census,
Universal Maps, & R2PC

Jackson County Hazard Mitigation



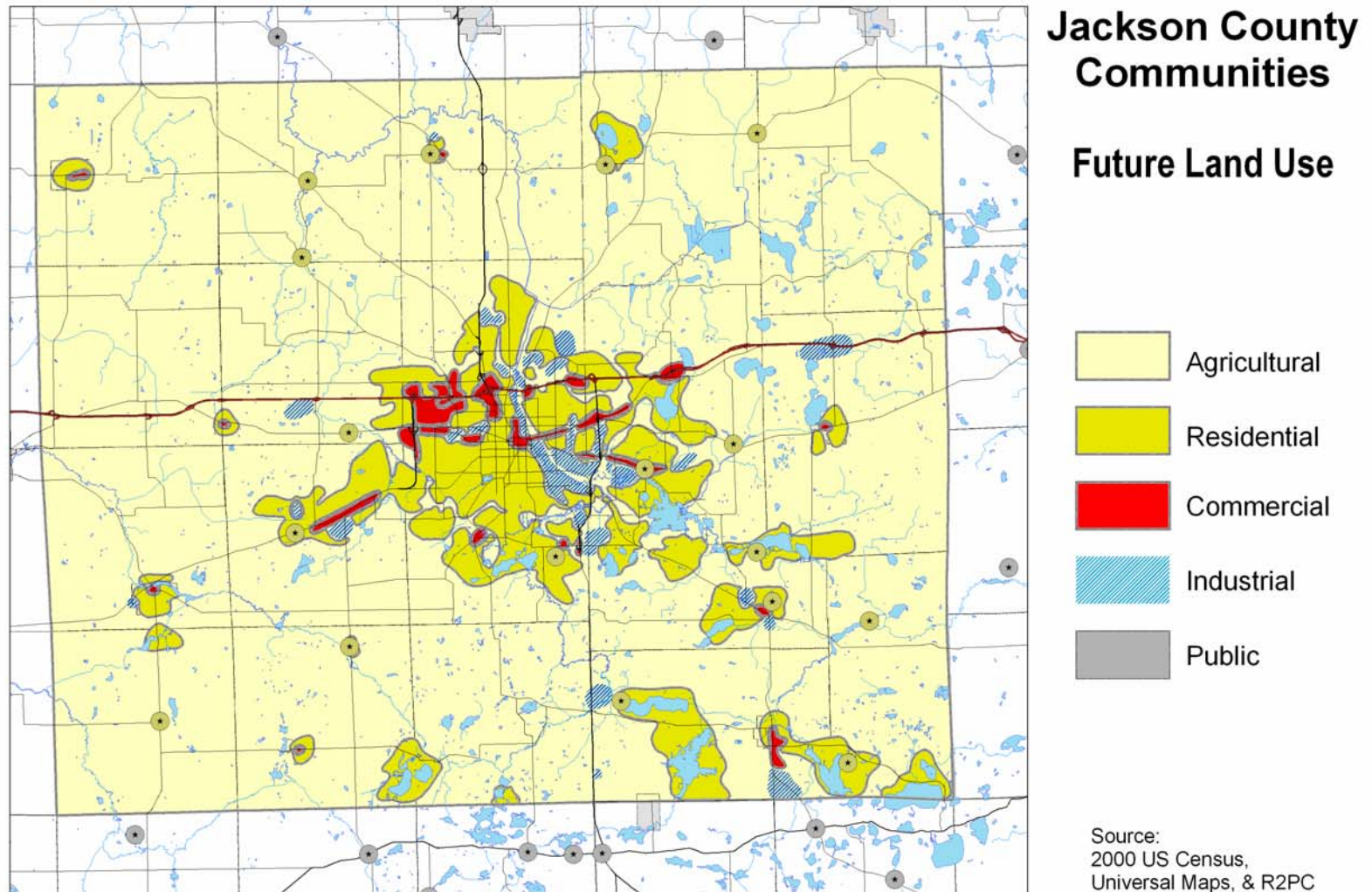
Jackson County Communities

Median Home Values



Source:
2000 US Census,
Universal Maps, & R2PC

Community Profile



Jackson County Hazard Mitigation

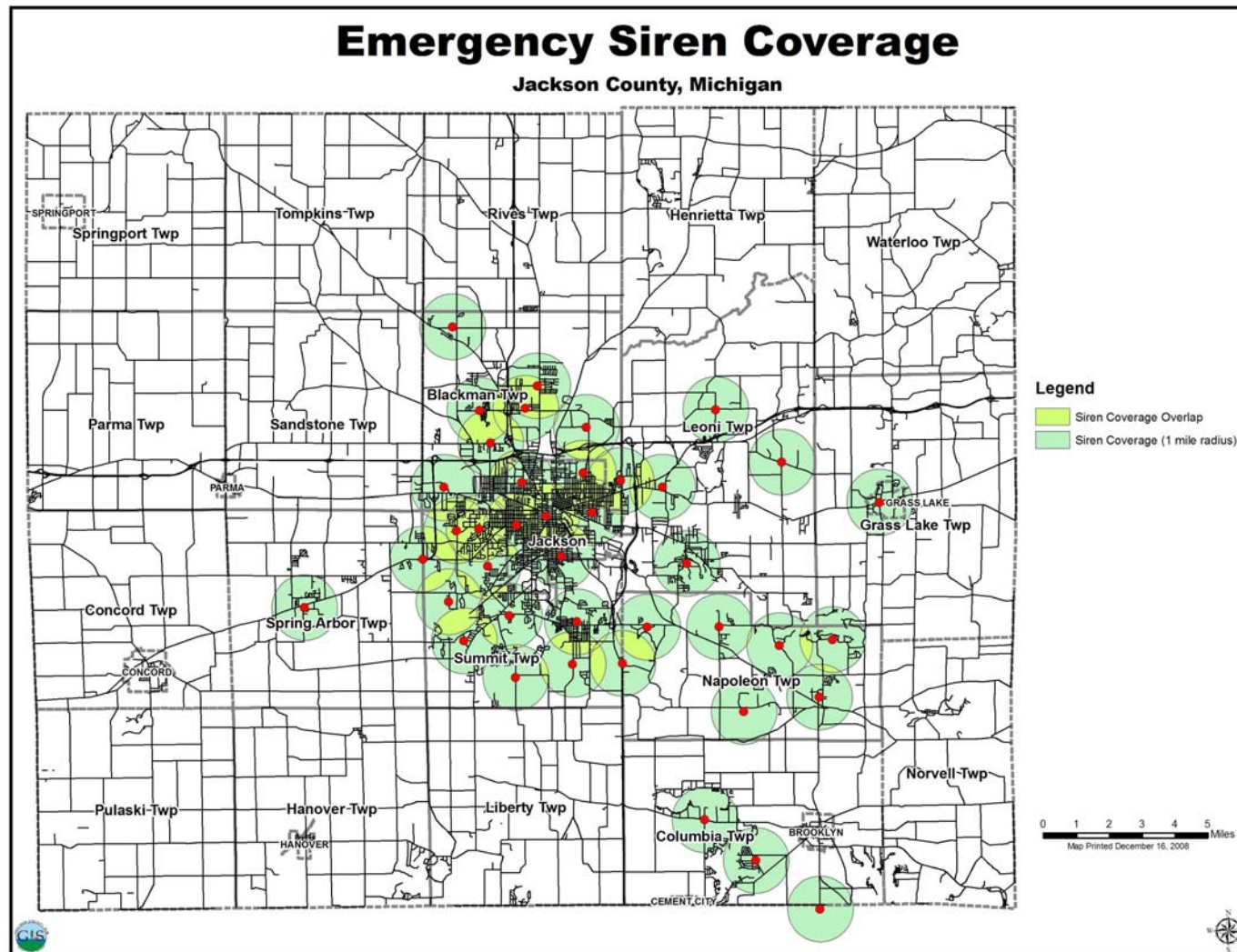
Emergency Warning Sirens

Jackson County has a system of emergency warning sirens to warn residents of the approach of tornadoes, nuclear attack, or other emergencies. A listing of these sirens and their locations are shown on a table entitled, “Jackson County Hazard Mitigation Plan – Emergency Warning Sirens”. Thirty-nine sirens are located primarily in the Jackson urbanized area and in population centers in Spring Arbor and Grass Lake Townships and in the lake areas in Columbia Township. While the urbanized area is well covered with sirens, several areas in the out-county area are not. These areas include the Villages of Brooklyn, Concord, Hanover, Parma, and Springport. In addition, areas of concentrated development which lack sirens include the lake areas of Round and Farwell Lakes, Pleasant Lake, Vineyard Lake, and Wamplers Lake. In addition, populated areas in Horton and Hanover Township and in Norvell Township do not have siren coverage. The location of sirens is mapped in a map entitled “Emergency Siren Coverage, Jackson County, Michigan”. The location of sirens are identified on the map and surrounded with a one-mile boundary.

The area of the City of Jackson, and Blackman and Summit Township have substantial siren coverage. Coverage in the areas of Leoni, Napoleon and Spring Arbor Townships are provided primarily in developed areas of these townships.

Jackson County Hazard Mitigation Plan EMERGENCY WARNING SIRENS 2008					
Siren Name	Street	Intersection	Siren Name	Street	Intersection
B-1	Rives Jct.	Van Horn Rd.	L-4	Portage Rd	Greenwood Rd
B-2	Lansing Ave	Cunningham Rd	N-2	Meridian Rd	Hart Rd
B-3	Doney Rd	Springport Rd	N-16	Rexford Rd	Fairmont St
B-4	Woodville Rd	Michigan Ave	N-17	Miles Rd	Napoleon Station 2
B-7	Parnall Rd	Township Hall	N-18	Lake St	Michigan Ave
B-8	Parnall Rd	Rod Mills Park	N-19	North St	West Ave (Napoleon H.S.)
B-9	Chanter Rd	Elm St	N-20	Stoney Lake Rd	Taylor Field
B-10	Dettman Rd	Osage Rd	N-21	Napoleon Rd	Olcott Dr.
Col-1	Jefferson Rd	Hayes Rd	N-22	Napoleon Rd	Anthony Dr
Col-2	Hewitt Rd	Turk Rd	S-1	Halstead Blvd	Morell St
Col-3	Brooklyn Rd	Taylor Rd	S-2	S. Jackson	Wickwire Rd
J-1	Jackson St	Wesley St	S-3	Maurice Ave	Cass Ave (Vandercook)
J-2	Bowen St	Morell St	S-4	Cobb Rd	Dead End
J-3	West Ave	North St	S-5	Arbor Hills Rd	Pioneer Dr
J-4	Fleming St	Floral Area	S-6	Hague Ave	Marion Rd
J-5	Pringle St	City Fire Station 3	S-7	Brookside Dr	Vrooman Rd
J-6	Milwaukee	Prospect	S-8	W. Mardee	S. Mardee
L-1	Fifth St	Township Hall	S-9	Robinson Rd	Morrell St
L-2	Sargent Rd	Brills Lake Rd	S-10	Dibble Rd	Dead End
L-3	Sutton Rd	Michigan Ave			

Community Profile



Jackson County Hazard Mitigation

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POTENTIAL HAZARDS

Jackson County Hazard Mitigation

Potential Hazards

A wide variety of hazards is known, or has the potential, to occur in Jackson County. These hazards include the following:

Civil Disturbances

1. Correctional Facility Uprisings and Other Civil Disturbances

Earthquakes and Subsidence

2. Earthquakes
3. Subsidence

Fire Hazards

4. Scrap Tire Fires
5. Structural Fires
6. Wildfires

Flooding Hazards

7. Riverine Flooding
8. Dam Failures

Energy and Utility/Infrastructure Failures

9. Energy Emergencies
10. Significant Infrastructure Failures
11. Passenger Transportation Accidents

Hazardous Materials Incidents

12. Fixed Site and Transportation-Related Hazardous Materials Incidents
13. Nuclear Power Plant Accidents
14. Oil and Natural Gas Well Accidents
15. Oil and Natural Gas Pipeline Accidents

Homeland Security

16. Nuclear Attacks
17. Sabotage/Terrorism/WMD
18. Public Health Emergencies

Potential Hazards

Extreme Weather

- 19. Drought
- 20. Extreme Temperatures
- 21. Hail
- 22. Lightning
- 23. Severe Wind Events and Tornadoes
- 24. Snowstorms
- 25. Ice and Sleet Storms

Jackson County Hazard Mitigation

1. Civil Disturbances - Correctional Facility Uprisings and Other Civil Disturbances

Civil disturbances fall into two categories; correctional facility uprisings and other civil disturbances.

Correctional Facility Uprisings

Correctional facility uprisings consist of riots and other disturbances at correctional facilities within the county. These may stem from perceptions of unjust rules or living conditions, or from gang rivalries.

Jackson County Perspective

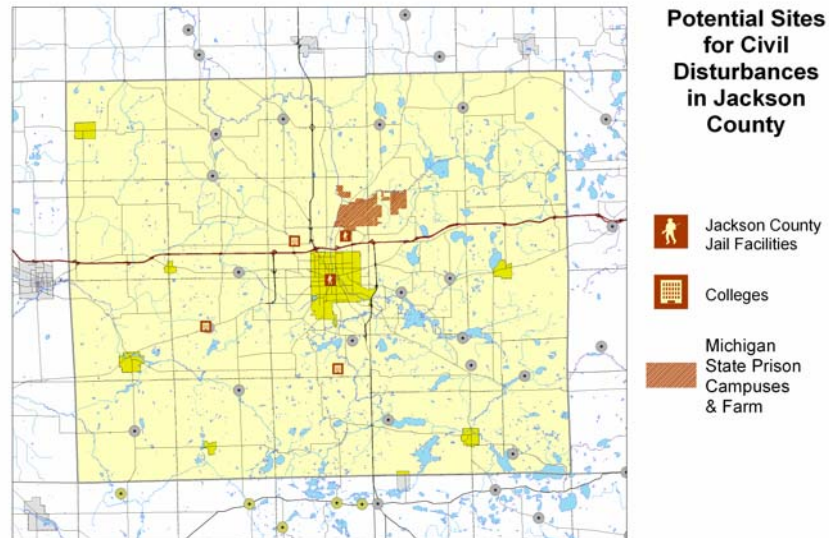
The adjacent table lists the correctional facilities currently located in Jackson County. Prison uprisings occurred at the Southern Michigan Prison (now closed) in 1952 and 1981. Based on these two occurrences during the period from 1952 to 2009, the probability of a correctional facility uprising in Jackson County is 4% in any given year.

Other Civil Disturbances

According to the Michigan Hazard Analysis, other civil disturbances rarely occur, but when they do they are usually an offshoot or result of one or more of the following events:

- ✖ labor disputes where there is a high degree of animosity between the participating parties
- ✖ high-profile/controversial judicial proceedings

Correctional Facilities	
Name	City/Twp
Charles Egeler Correctional Facility	Blackman
Cooper Street Correctional Facility	Blackman
G. Robert Cotton Correct. Facility	Blackman
Parnall Correctional Facility	Blackman
Jackson County Jail	Jackson



Potential Hazards

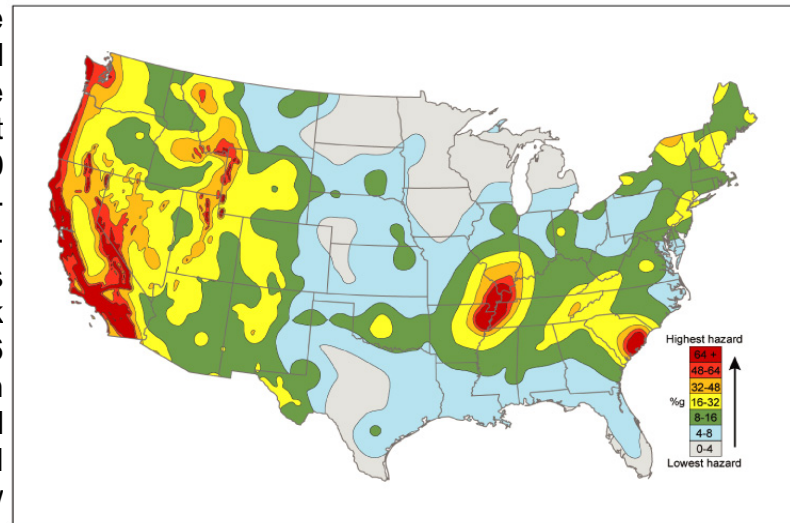
- ✗ the implementation of controversial laws or other governmental actions
- ✗ resource shortages caused by a catastrophic event
- ✗ disagreements between special interest groups over a particular issue or cause
- ✗ a perceived unjust death or injury to a person held in high esteem or regard

Jackson County Perspective

With the closure of a major prison facility in Jackson, the chance of occurrence has lessened considerably and therefore is difficult to estimate from historical trends. However, it seems plausible to give a rough estimate that there may be about a 10% chance of a significant civil disturbance during the next decade. This estimate may be changed upward or downward, as new information and techniques of analysis are eventually incorporated into this hazard analysis.

2. Earthquakes

Jackson County is located in an area in which there is a low probability of earthquakes. The New Madrid Seismic Zone near Memphis, Tennessee poses the most significant threat. If an earthquake were to hit Jackson County, there would only be a 1-in-50 chance of the resulting horizontal shaking accelerating more than 4-8% in the next 50 years. Fortunately, less than 1.5% of the land in the County is subject to landslides which further reduces the risk that earthquakes pose in Jackson County. A 1986 earthquake near the southern shore of Lake Erie in Northeast Ohio was a Level II-III on the Modified Mercalli Intensity Scale in Jackson County. A Level II, according to the USGS, can be felt only by a few persons at rest, especially on upper floors of build-



Jackson County Hazard Mitigation

ings. A Level III can be felt quite noticeably by persons indoors, especially on upper floors of buildings. Many people do not recognize it as an earthquake. Vibrations are similar to the passing of a truck.

Jackson County Perspective

According to the Jackson County Local Hazard Analysis (January, 2003), there have been no significant earthquake events in Jackson County. The largest earthquake in Michigan occurred in 1947 and was located southeast of Kalamazoo in the Bronson, Coldwater, Colon, Union City area. "Chimneys were damaged, windows and plaster were broken, and brick cornices were downed." The event registered 4.6 on the Richter Scale and had an intensity of VI. The event is reported at http://earthquake.usgs.gov/region/states/events/1947_09_10.php. The website references "Siesmicity of the United States, 1568-1989 (Revised)", by Carl W. Stover and Jerry L. Coffman, U.S. Geological Survey Professional Paper 1527, United States Government Printing Office, Washington, 1993.

It seems reasonable to estimate that one or two minor ground disturbances will be felt during the next decade, but that these will not cause any significant damage. There is some chance (not clearly defined) that a major earthquake may occur out-of-state during this timeframe and may cause some effects for Jackson County, such as energy disruptions or price increases, or the accomodation of refugees (in the case of a major New Madrid fault line event in the areas of Memphis, TN and St. Louis, MO, the most serious earthquake incident projected to be likely.

The greatest impact on Jackson County would probably come from the damage to natural gas and petroleum pipelines. If an earthquake occurs in the winter, the county could be severely impacted by fuel shortages. Damage would probably be negligible in well-designed and constructed buildings. However, poorly designed and constructed buildings could suffer considerable damage under the right circumstances.

3. Subsidence

Subsidence is the lowering or collapse of the land surface due to loss of subsurface support. It can be caused by a variety of natural or human-induced activities. Natural subsidence occurs when the ground collapses into underground cavities produced by the dissolution of limestone or other soluble materials by

Potential Hazards

groundwater. Human-induced subsidence is caused principally by groundwater withdrawal, drainage of organic soils, and underground mining. Generally, subsidence poses a greater risk to property than to life. In Southern Lower Michigan, the primary causes of subsidence are salt mining, gypsum mining, and coal mining. Of these three causes the mining of coal is significant in Jackson County. Coal was discovered in 1835 and several small underground and surface mines were opened.

Jackson County Perspective

A subsidence incident occurred in October, 1984 when the abandoned Andrews Street Coal Mine in Jackson County partially collapsed, causing a detached garage, driveway and vehicle at a residence to collapse into a shallow sinkhole. A \$12,000 emergency reclamation project was instituted in that subsidence incident.

Since only one limited-scale event was noted in recent years, the probability of a similar event occurring again is difficult to estimate, but is certainly possible. The chance of occurrence might tentatively have been estimated as 5% within the next decade. However, as this plan was being developed, input was received regarding a class action lawsuit currently being taken, in which it is claimed that the groundwater depletion effects of the City of Jackson water pumping system has been causing a number of subsidence events impacting residential properties over the past 15 years. Damages have been described as the cracking and buckling of basement flooring and brick work, bedroom walls, yard depressions, slanting foundations, and other effects. The claim is that the southwestern area of the City of Jackson may have a great many structures at risk from subsidence effects, due to groundwater withdrawal. As the information and issues raised by this lawsuit are studied and analyzed, more definitive information can be included in the next update of this hazard mitigation plan and, if necessary, acted upon through appropriate means.

4. Scrap Tire Fires

Management of scrap tires has become a major economic and environmental issue. Scrap tires are breeding grounds for mosquitoes. From an emergency management perspective, the most serious problem that scrap tire disposal sites pose is that they can be a tremendous fire hazard if not properly designed and managed.

Jackson County Hazard Mitigation

Jackson County Perspective

There is one compliant registered scrap tire collection site and one registered hauler in Jackson County, according to the Michigan Department of Natural Resources and Environment (MDNRE). However, an MDEQ map entitled “Map of Regulated/Registered Outdoor Scrap Tire Collection Sites – November, 2009” indicates that the Jackson area had a site which was not compliant with registration requirements and thus suggests the possibility of a major fire risk. There is no real basis for estimating this probability, but it seems prudent to keep alert by suggesting the risk be treated as that similar to or greater than the subsidence hazard.

5. Structural Fires

Structural fires are often referred to as the universal hazard because they occur in virtually every community. They are by far the most common hazard facing most communities in Michigan and across the county. Over 1.7 million fires occurred in the State of Michigan during the period of 1975-2002, resulting in an average of over 63 thousand fires a year, with an annual average loss of \$360.7 million. Jackson County was in the bottom half of Michigan counties for the number of fires per 1,000 people in 1998.

Unfortunately, death can be an outcome of structural fires, and Michigan's fire death rate in 1996 of 21.2 persons per million people puts it in the upper third of all states in the nation. According to the office of the State Fire Marshal, an average of 254 persons a year died in Michigan fires during the period of 1975-2002.

2002 Michigan Fire Statistics				
	Incidents	Injuries	Deaths	Loss (\$)
Residential	13,018	643	145	\$477,072,842
Public Assembly/Stores	1,200	13	1	\$54,926,043
Industry	2,040	34	3	\$25,047,373

Fires can occur in industrial and public assembly/mercantile structures as well as residences. As the above table illustrates, residential fires comprised 80% of the total number of fires and 86% of the monetary losses.

Potential Hazards

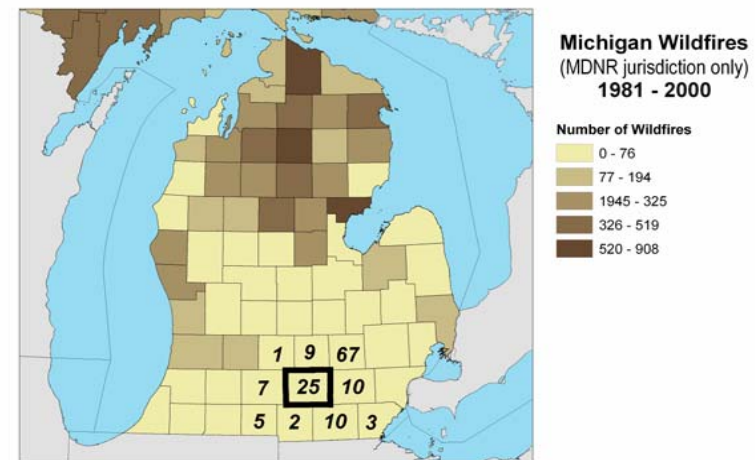
Fires in stores and other places of public assembly comprised 7% of the total number of fires and 10% of the monetary losses. Industrial fires comprised 13% of the total number of fires and 4% of the monetary losses.

Jackson County Perspective

It is expected that hundreds of fires will occur per year in a county the size of Jackson, but not all of these will be extremely serious events, on a community-wide scale. Approximately 775 separate fire events might be estimated (based on the history of past occurrences) to cause an average of \$5,725 damage per event, totaling about \$4.4 million in damage per year within the county.

6. Wildfires

Michigan has the fifth largest timberland acreage, with 4.2 million acres of softwoods and 13.1 million acres of hardwoods. That vast forest cover is a boon for both industry and recreation. However, it also makes many areas of Michigan highly vulnerable to wildfires. Because Michigan's landscape has changed substantially over the last several decades, due to wild land development, the potential danger from wildfires has become more severe. Increased development in and around rural areas (a 60% increase in the number of rural homes since the 1980s) has increased the potential for loss of life and property from wildfires. Much of the recent development in Jackson County is also exurban in nature. The Irish Hills (i.e., Columbia and Norvell Townships) is an area of specific concern, for example, due to the exurban development which exists around its many lakes.



Jackson County Hazard Mitigation

Jackson County Perspective

There were 25 fires affecting 523 acres on Michigan Department of Natural Resources (MDNR) controlled land in Jackson County between 1981 and 2000. Based on the history from 1981 to 2000, an average of 1.25 wildfires per year occur involving MDNR lands. This should be taken as a conservative estimate of the expected annual number of wildfires, since information was not available or included regarding fire history on private, non-DNR lands.

7. Riverine Flooding

Floods can damage or destroy public and private property, disable utilities, make roads and bridges impassable, destroy crops and agricultural lands, cause disruption to emergency services, and even result in fatalities. People may be stranded in their homes for several days without power or heat, or they may be unable to reach their homes at all. Long-term collateral dangers include the outbreak of disease, widespread animal death, broken sewer lines causing water supply pollution, downed power lines, broken gas lines, fires, and the release of hazardous materials.

Jackson County Perspective

The Federal Emergency Management Agency (FEMA) recently prepared a revised draft Flood Insurance Study (FIS) for Jackson County, Michigan. Though undated and preliminary, the study was made available in digital form in a meeting held in Jackson County in the spring of 2009. The study included all communities in Jackson County – those that have FIRMs, those that were identified and for which a preliminary FIRM was prepared, and those for which no special flood hazard was identified. FIRM status for each community is shown in the table titled, “Flood Insurance Rate Map (FIRM) Status” which is found on the following page.

The FEMA study provides a history of major flood events in Jackson County including the following:

-The major flood of record for the Grand River occurred in March 1904. No flow estimate is available for this event. Another large flood event occurred in 1937. On June 20 and 21, 1937, 6.36” of rainfall was measured in the City of Jackson. An additional 1.72” of rain fell four days later. According to historical accounts,

Potential Hazards

the resulting flooding caused severe flooding of streets and basements. However, this flooding was largely localized flooding caused by clogged catch basins and overloaded storm sewers rather than high water on the Grand River.

-On June 23-26, 1968, 4.0" of rainfall was measured in the City of Jackson. While the maximum stream flow from this event was slightly less than that measured during the 1937 event, the observed water-surface elevation at the Jackson Waste Water Treatment Plant was abnormally high. The water-surface elevation was approximately a 1-percent-annual-chance flood elevation, while the stream flow was approximately equal to the 4-percent-annual-chance discharge. This high-water surface elevation was caused by debris blocking the channel downstream.

Jackson County Hazard Mitigation

This debris has since been removed. The water-surface elevation during this event was approximately 6.5 feet higher than the normal water-surface elevation for the time of year. This event caused some street and basement flooding. Other significant floods occurred in 1947 and 1950. However, at the time the 1980 City of Jackson Flood Insurance Study was published, no significant damage had occurred since a concrete conduit built as a Works Progress Administration project was constructed in the business district of the City of Jackson to improve low conditions. Localized flooding has been experienced in the areas surrounding the Grand River due to inadequate storm drainage. This is primarily due to a combination of snowmelt and rainfall on saturated or frozen ground during the late winter and early spring. Intense, localized rainfall during

Jackson County Hazard Mitigation Plan FLOOD INSURANCE MAP (FIRM) STATUS As of October, 2009				
	NFIP Participants	Preliminary FIRM	No Special Flood Area Specified	Not Included in Preliminary FIRMs
City of Jackson	Feb 8, 1980			
Blackman Township	Dec 18, 1984			
Columbia Township	May 3, 2010	X		
Concord Township	Jan 1, 1950			
Grass Lake Charter Township	May 3, 2010	X		
Hanover Township			X	
Henrietta Township		X		
Leoni Township	Jan 1, 1950			
Liberty Township		X		
Napoleon Township	May 3, 2010	X		
Norvell Township	Sep 30, 1988			
Parma Township		X		
Pulaski Township	May 3, 2010	X		
Rives Township		X		
Sandstone Charter Township	May 3, 2010	X		
Spring Arbor Township			X	
Springport Township		X		
Summit Township	Oct 15, 1982			
Tompkins Township		X		
Waterloo Township	May 3, 2010	X		
Village of Brooklyn	Jun 1, 1982			
Village of Cement City				X
Village of Concord	Mar 1, 1982			
Village of Grass Lake			X	
Village of Hanover			X	
Village of Parma			X	
Village of Springport			X	

Potential Hazards

the summer months can also result in such flooding.

It is important to note that the City of Jackson has made improvements in the downtown area through the removal of the Holton Dam which had been located immediately east of the intersection of the river and Francis St., and the removal of a cap which had separated the conduit from the overflow deck located immediately above the conduit. It is believed these two improvements have reduced the likelihood of flooding, and an assessment of these actions has been requested through the FEMA consultant assigned to prepare the flood insurance study.

The study also indicates that flooding in Summit Township is relatively minor as a result of its location near the upper reaches of the Grand River, though noting that the possibility of major flooding from a severe storm still exists.

In addition, the study indicates that little serious flooding has occurred in the Village of Brooklyn and that flooding in this area has been limited to undeveloped areas adjacent to the rivers.

The study also indicates that the flood season for the Kalamazoo River Watershed, located in the southwestern portion of the county, extends from late winter to early spring. It notes that frozen ground with large accumulations of ice and snow and accompanied by rapidly rising temperatures and high intensity rainfall has caused major floods during this time of year. Further, it notes that climate conditions in early summer are conducive to high intensity rain storms that can also cause flooding.

A preliminary review of the Proposed FIRMs maps has been conducted by R2PC staff. There are many areas in which 100-year flood plains have been identified which were not shown on previous FIRMs, or which are identified in previously un-mapped local units of government. These newly defined areas do not appear to contain substantial development where significant flood loss could be experienced, with one possible exception. The Northwest Mobile Home Park, located on the north side of Parnall Road in Section 17, falls within the 100 year flood boundary on the preliminary FIRM. Further study of these newly created maps is necessary to assess flood risk throughout the county. (See large format composite flood plain map attached as Appendix B.) However, each community which has been mapped intends to adopt and enforce the National Flood Insurance Program (NFIP) flood management requirements. Communities for which no flood

Jackson County Hazard Mitigation

hazard areas have been identified will monitor conditions and request further analysis of flood potential if it appears necessary to do so.

Those communities which have FIRMs will continue to monitor conditions in their communities, identify possible mitigation strategies, and work with FEMA to evaluate the impact of mitigation actions on their FIRMs and the flood hazard areas identified upon them.

Various areas, as illustrated on the official Flood Insurance Rate Maps, have been defined as having at least a 1% per year chance of being flooded. These areas are the designated floodplain areas shown on the maps. Sites located well within those floodplains may (depending on their locations and land elevations) have an even greater chance of experiencing flood events. This is particularly true of two structures located within Summit Township, which have officially been designated as “repetitive loss properties” by the NFIP, and thus prioritized for flood mitigation action. These two structures have recently tended to experience one or more damaging incidents per decade, costing thousands of dollars in damages to property at each location.

The following table provides information regarding other flood events from 1995-2009 in Jackson County. The table indicates that there were 15 floods within a period of 15 years, or an average of 1 event per year. Flash flood warnings were also issued on five other occasions. Property damage as a result of flooding during the period was \$472,000 with no injuries or fatalities. With few exceptions, floods occurred in the City of Jackson. ***On one occasion, flooding was sufficient to result in the issuance of disaster declaration from Governor Granholm for 24 counties in Michigan including Jackson County. President George Bush supported the governor's declaration for 19 of the 24 counties and federal disaster relief was made available to Jackson County***

Jackson County Flood Events, 1995-2009		
Date	Description	Location
8/2/1995	1630: Flood/flash Flood, \$2,000 property damage. 3.17 inches of rain fell over downtown Jackson in less than an hour, causing sewage overflow into the Grand River. A newly installed stone retaining wall at the New Tribes Bible Institute partially collapsed when loose soil became saturated and gave way. Low lying streets were flooded throughout the city.	Jackson

Potential Hazards

Jackson County Flood Events, 1995-2009		
Date	Description	Location
8/17/1995	1130: Flood/flash Flood, \$20,000 property damage. More than two inches of rain fell over the city of Jackson following similar amounts from the previous day, giving two day totals near six inches at some locations. The flash flooding that resulted left water two to three feet deep at many intersections and parking lots, with water entering many cars and buildings, including the Y Center downtown where a gymnasium and other recreation rooms were flooded.	Jackson
3/9/1998	08:00 AM: Flood. Minor flooding occurred along the Grand River in Jackson during the morning of March 9th. During the previous 24 hours, heavy rains of around an inch and a half had occurred in the Jackson area, resulting in significant runoff from the urban area and rapid rises in river levels. Jackson is located near the headwaters of the Grand River and the heavy rains caused the river to respond quickly and crest just above flood stage at 13.3 feet. The river was only at or above flood stage for 2 hours. Minor flooding occurred, but no property damage was reported.	Jackson
06/16/1998	06:00 PM: Flash Flood at Munith. Jackson County local law enforcement reported the flooding of several intersections along Michigan Highway 106 across northeastern Jackson County, in and around the Munith area. NWS Doppler Radar estimated two to three inch per hour rainfall, with storm totals in excess of five inches during a two hour period over this area. No injuries or significant damages were reported.	Henrietta Township – Munith
05/18/2000	07:00 AM: Flood.. Flood warnings were therefore issued in Jackson County on May 18 th and 19th.	Jackson County
05/26/2000	06:30 PM: Flood, \$450,000 property damage. Several severe thunderstorms produced flooding in multiple areas, and also caused the wall of a bowling alley to collapse (no injuries or fatalities). Law enforcement in the City of Jackson reported that part of a roof and a wall of a bowling alley collapsed at 6:30 pm. Further investigation into this event revealed that debris from the damaged building was found about 400 yards away near an airport runway. However, the damage did not appear to be caused by a tornado. The dome shape of the roof implies that water loading on the roof did not cause the collapse, although there were reports of flooding in the area. The most likely cause of the damage was deemed to be a “gustnado” or microburst. At 7:15 p.m., a trained spotter reported that Interstate 94 near the City of Jackson was flooded. (NOTE: Faults in the NCDC online database caused this information to also appear under an entry for 8/26/2000 as well as 5/26. In this plan, information for 8/26 was taken from the Law Enforcement Information Network instead of NCDC.)	Jackson, Blackman Township
2/9/01-2/18/01	Rain, snowmelt, and flooding JACKSON, Flood warnings issued. 2/10/2001 JACKSON, at 1220, Flash report sent reporting flash flooding along the Grand River (measured at 12.2') in the county.	Jackson, Jackson County

Jackson County Hazard Mitigation

Jackson County Flood Events, 1995-2009		
Date	Description	Location
2/26/2001	JACKSON, Flash Flooding in Jackson	Jackson
10/16/2001	Flood Warning for the Grand River at Jackson (JACKSON), maximum, stage forecast at 13.3ft, flood stage is 13ft NWS in Grand Rapids issued a flood warning for the Grand River at Jackson in JACKSON County. The river was expected to go above flood stage of 13.0 feet that afternoon. The latest stage was 12.5 feet at 1200 on Tuesday. Flood stage is 13.0 feet. Minor flooding is forecasted. The river will go above flood stage this evening and is expected to fall back below flood stage this evening. At 13.0 feet expect minor flooding of low-lying areas.	Jackson
7/28/2002	Flood warning for Grand River at Jackson in JACKSON County. NWS in Grand Rapids has issued a flood warning for Grand River at Jackson. Moderate flooding is expected. Two to three inches of rain fell at Jackson in less than 2 hours. Moderate flooding with a stage of 14 feet measured. Flood stage is 13 feet.	Jackson
8/23/2002	05:30 PM, Flood at Jackson, \$50,000 property damage, \$5,000 crop damage. More than two inches of rain also fell in a short time in Jackson, causing an underpass to be flooded on Jackson Street north of Glick Highway, where several cars got stuck in up to three feet of standing water. Flash flood warning for JACKSON County: NWS indicated rainfall in the city of Jackson of almost two inches has resulted in widespread flooding. Flood warning for Grand River at Jackson in JACKSON County. The latest stage was 11.7 feet. Flood stage is 13 feet, which is 0.6 feet above flood stage. The river was forecast to rise above the flood stage of 13.0 feet this evening. The river is forecast to fall below the flood stage of 13.0 feet early Saturday morning. This crest compares to a previous crest of 13.5 feet on March 30, 1982. Local storm report for JACKSON County: Flash floods and several roads and I-94 had water over them. Several manhole covers were lifted off.	Jackson
8/24/2002	Hydrologic statement: The Grand River at Jackson. Flood stage is 13.0 feet. Forecast stage is 9.3.	Jackson
3/23/2003	Hydrologic statement: For the Grand River at Jackson in JACKSON County, the latest stage was 10.1 feet. Flood stage is 13.0 feet. No flooding is forecast. The maximum stage forecast is 10.1 feet.	Jackson
5/1/2003	Flood warning: The Grand River at Jackson in JACKSON County. The latest stage was 13.0 feet. The river is expected to rise to 13.8 feet and then recede slowly.	Jackson
5/21/2004	11:32 PM, Flood, \$2,500,000 property damage, \$4,600,000 crop damage. The biggest and longest duration flooding event in the past ten to twenty years occurred across southwestern and south cen-	Jackson County

Potential Hazards

Jackson County Flood Events, 1995-2009		
Date	Description	Location
	<p>tral lower Michigan from May 20th through the third of June. Flooding in mid May resulted in very high river levels and the ground was saturated on the 20th. Numerous thunderstorm complexes and areas of heavy rainfall developed repeatedly in the vicinity of a quasi stationary frontal boundary draped across southern lower Michigan. The heaviest rain fell on Saturday, May 22nd, when over two inches of rain fell over most of the area. Total rainfall over the Grand River basin from May 20th through June 3rd varied from four to as much as seven inches. The Grand Rapids office of the National Weather Service issued a Hazardous Weather Outlook as early as Wednesday morning, May 19th, to mention the threat of flooding. A hydrologic outlook was issued on May 20th to further address the potential for widespread flooding. A flood watch was issued for the entire area on Friday, May 21st. Flood warnings were issued for the southern half of our area at 12:10 a.m. EDT Saturday May 22nd, and for all of our area at 4:10 a.m. EDT Sunday May 23rd through 12 a.m. EDT May 24th. The following is a summary of peak river crests from across our Hydrological Service Area (HSA): Here are some daily flooding headlines from the period from May 22nd through June 4th: May 22nd: The Woodward Elementary School in Jackson county was flooded and damage there was estimated at \$200,000. June 4th: Governor Granholm issued a disaster declaration for 24 counties in Michigan. That list included Jackson County. President George Bush supported the governor's declaration for 19 of the 24 counties and federal disaster relief was made available to Jackson County. It was the wettest May on record in Lansing and Muskegon and the third wettest May on record in Grand Rapids. 9.29" of rain fell in Grand Rapids for the month, which is 5.94" above normal. 10.44" of rain fell in Lansing, which 7.73 inches above normal there. 9.59" of rain fell in Muskegon, which is 6.64 inches above normal. When it was all said and done with, approximately 500 homes were flooded, three dams were damaged, two schools were flooded, one state university building had flooding problems, and a zoo was flooded and closed for four days. The monetary estimate of flood damages incurred is in the millions of dollars. However, there was no loss of life due to all of the flooding.</p>	

Sources: Michigan Hazard Analysis, the National Climatic Data Center (NCDC) storm events database, reports from the Law Enforcement Information Network (LEIN), and input from plan participants.

Repetitive loss properties are designated by FEMA. The properties are flood-insured properties located within participating NFIP communities that have filed damage claims reporting a significant amount of dam-

Jackson County Hazard Mitigation

age from flooding. FEMA wishes to prioritize flood mitigation activities for these properties. The repetitive loss properties include two ordinary residential structures. The first property has experienced five reported flood losses over the past two or three decades, totaling about \$34,000 in property damage (both to the structure and to contents within the structure). The other property has two reported flood losses over that same approximate time frame, totaling about \$6,500 in property damage (structure and contents). The vulnerability of these properties is thus estimated as an average of twice per decade and \$6,821 in damage for the first case and about once per 15 years or so in the second case, with an average of \$3,275 in damage per event.

8. Dam Failures

A dam failure can result in loss of life and extensive property or natural resource damage for miles downstream from the dam. Dam failures occur not only during flood events, which may cause overtopping of a dam, but also be a result of poor operation, lack of maintenance and repair, and vandalism. Such failures can be catastrophic when they occur unexpectedly providing no time for evacuation. Under state and federal legislation, certain dam owners are required to develop a survey of the downriver area, develop flood prone area maps, develop emergency action plans, and exercise these plans.

Environmental law in Michigan requires the Michigan Department of Environmental quality to rate each dam as either “high”, “significant”, or “low” hazard potential, according to the potential downstream impact if the dam were to fail. Dams over 6’ in height that create an impoundment with the surface area of more than 5 acres are regulated by statute. Dam owners are required to maintain an emergency action plan for “high” and “significant” hazard potential dams.

Jackson County Perspective

In Jackson County one dam has been rated high hazard potential, and four dams have been rated significant hazard potential. The location of these dams are known by the MDEQ and Emergency Management officials but are being withheld from this report for security reasons. It is estimated that there is a low probability of a significant dam failure, based on hydrologic conditions and the lack of historical events of this type.

Potential Hazards

The Jackson County local Hazard Analysis prepared by the Jackson County Sheriff's Department in January, 2003 notes with regard to dams that although there are dams that require maintenance or dams that have water seepage, there have been no outright dam failures in Jackson County.

9. Energy Emergencies

An adequate energy supply is critical to Jackson County's economic and social well-being. The American economy and lifestyle are dependent on a non-interrupted, reliable, and relatively inexpensive supply of energy that includes gasoline to fuel our vehicles, and electricity, natural gas, fuel oil, and propane to operate our homes, businesses and public buildings. To date, Americans have always dealt with short term energy disruptions caused by severe weather damage (i.e., downed power lines and poles), broken natural gas and fuel pipelines, and shortages caused by the inability of the energy market to adequately respond to consumer demand and meet required production. However, the 1973/74 Oil Embargo and the 1991 Gulf War highlight our continued vulnerability.

There are three types of energy emergencies:

- ✖ the physical destruction to energy production or distribution facilities caused by severe storms, tornadoes, floods, earthquakes, or sabotage;
- ✖ a sharp sudden escalation in energy prices, usually resulting from a curtailment of oil supplies; and
- ✖ a sudden surge in energy demand caused by a national security emergency involving mobilization of U.S. defense forces.

Jackson County Perspective

Jackson County has experienced numerous and severe electrical power outages, caused mostly by severe weather such as windstorms or ice and sleet storms. Fortunately, most of those occurred in months where severe cold temperatures were not a problem. If they had occurred during the cold winter months, there certainly would have been a potential for loss of life — especially among the elderly and other more vulnerable members of society.

Jackson County Hazard Mitigation

The Planning Committee estimated the risk of this hazard as a common annual event, although the severity of each year's events may vary. Multiple energy emergencies of one type or another are therefore expected to occur each year (also see the significant infrastructure failure hazard, which overlaps in classification with this one).

10. Significant Infrastructure Failures

Michigan's citizens are dependent on the public and private utility infrastructure to provide essential life supporting services such as electric power, heating and air conditioning, water, sewage disposal and treatment, storm drainage, communications, and transportation. When one or more of these independent, yet interrelated systems fail due to disaster or other cause—even for a short period of time—it can have devastating consequences. The following listing describes the various types of infrastructure systems (all of which can fail):

- x Water Distribution
- x Wastewater Collection/Treatment
- x Surface Drainage
- x Telecommunications

Jackson County Perspective

Jackson County has been spared the difficulties related to disastrous infrastructure failures. Such failures are possible, however. The Jackson Planning Committee estimated that disastrous infrastructure failures are similar in frequency to a significantly damaging earthquake, subsidence, or dam failure event. For planning purposes, this might be estimated as a 5 to 10 percent chance during the next decade.

11. Passenger Transportation Accidents

A passenger transportation accident is defined as a crash or accident involving an air, land or water-based commercial passenger carrier. While the safety record of passenger commercial transportation is very good for aircraft buses, and trains, crashes are possible. There is a potential for harm or fatalities. Air crashes

Potential Hazards

may occur in flight (with equipment malfunction or sabotage), on landings and take-offs, and while vehicles are moving on the ground.

Jackson County Perspective

Jackson County Reynolds Field is located immediately southwest of the intersection of I-94 and Airport Road in Blackman Township. Brooklyn Shamrock Field is located south of M-124, just southeast of the Village of Brooklyn. Napoleon Airport, a basic utility airport, is located on the northeast corner of M-50 and Napoleon Road in Napoleon Township. In Jackson County, there are no commercial passenger flights. There are two general utility airports, and one basic utility airport. Jackson County is served by commercial buses (intercity, municipal and school) and train traffic. Jackson County has had no serious crashes involving commercial carriers. Disaster-level events of this type are quite rare in Michigan, but for planning purposes are tentatively estimated as having only about 3 to 5 percent chance of occurrence in Jackson County over the next decade.

When responding to any of these types of commercial transportation accidents, emergency personnel may be confronted with a number of problems, including:

- x suppressing fires;
- x rescuing and providing emergency first aid for survivors;
- x establishing mortuary facilities for victims;
- x detecting the presence of explosive or radioactive materials; and
- x providing crash site security, crowd and traffic control, and protection of evidence.

Jackson County Hazard Mitigation

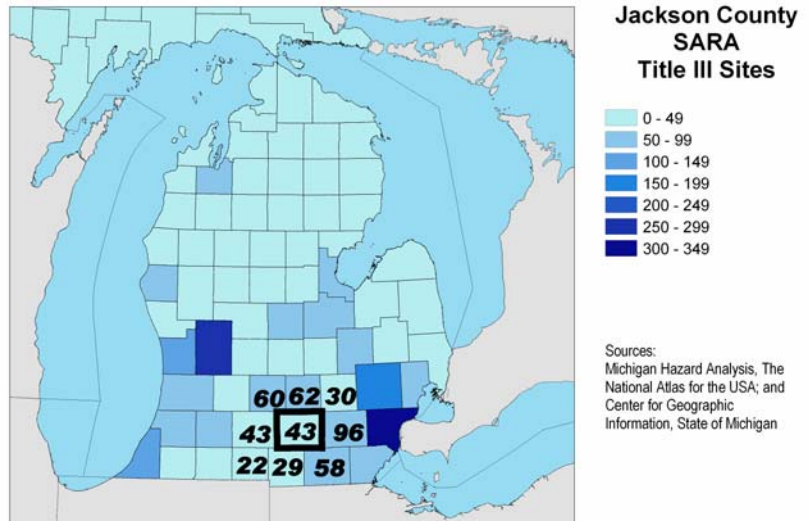
12. Hazardous Material Incidents: Fixed Site and Transportation

Fixed Site

A fixed site hazardous material incident is an uncontrolled release of hazardous materials from a fixed site capable of posing a risk to life, health, safety, property or the environment. This definition includes industrial accidents. The SARA Title III program is committed to efficiently and effectively overseeing data collection and quality assurance of environmental information transmitted to the Department of Environmental Quality. This includes providing support to the Michigan Emergency Planning and Community Right-to-Know Commission (SERC) on coordination of hazardous materials enforcement, response, and planning in the State of Michigan.

Jackson County Perspective

Jackson County had 43 SARA Title III sites, as of September 2001. A Michigan Department of Environmental Quality (DEQ) list indicates that there were 45 sites as of July 2006. No recent industrial accidents of any significance in Jackson County were recorded in the Michigan Hazard Analysis, and no hazardous materials incidents of any significance have been reported since 1976, the first year such records were kept. For planning purposes, it is tentatively estimated that there is about a 20% chance of a major hazardous materials incident (either fixed site or transportation-related) in Jackson County over the next decade.



Potential Hazards

Transportation

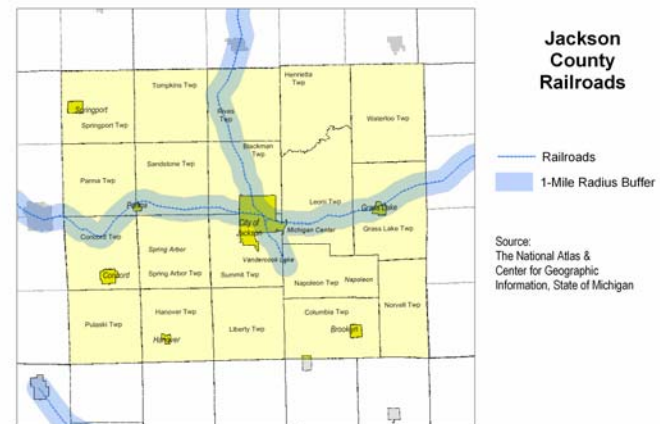
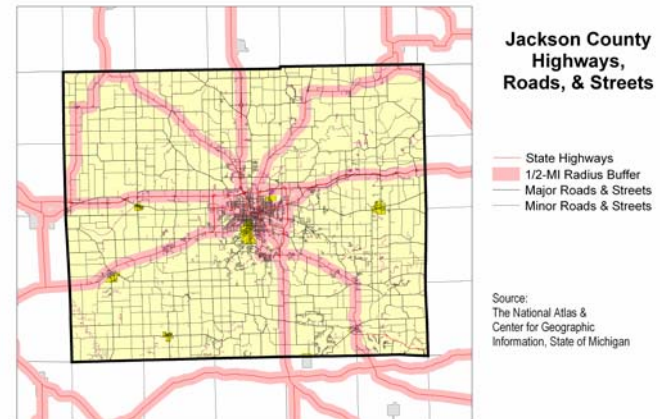
A transportation hazardous material incident is an uncontrolled release of hazardous materials during transport capable of posing a risk to life, health, safety, property or the environment. Several state highways traverse Jackson County (e.g., I-94; BL-94; US-127; M-50; M-52; M-60; M-99; & M-106). Highways—in addition to major local roads and streets—are the most likely thoroughfares utilized for the transport of hazardous materials. However, it is important to note that parts of many hazardous material transport trips will occur on minor local roads and streets. Railroads are also utilized for the transport of hazardous materials. Several rail lines are located in the county.

Jackson County Perspective

No post-1978 (the first year of records) Jackson County hazardous material transportation incidents were recorded in the Michigan Hazard Analysis. For planning purposes, it is tentatively estimated that there is about a 20% chance of a major hazardous material incident (either fixed or transportation related) in Jackson County over the next decade.

13. Nuclear Power Plant Accidents

Even though the construction and operation of nuclear power plants are closely monitored and regulated by the Nuclear Regulatory Commission (NRC), accidents at these plants are considered a possibility and ap-



Jackson County Hazard Mitigation

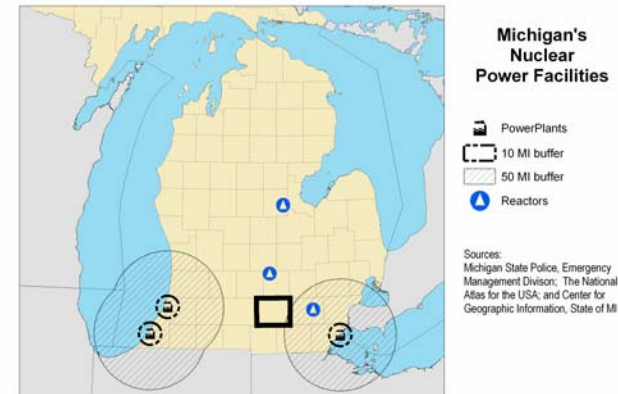
propriate on-site and off-site emergency planning is conducted. The following significant world-wide nuclear power plant accidents have occurred (including an accident in Michigan):

1986 — Chernobyl, Ukraine

1979 — Three Mile Island, Harrisburg, Pennsylvania

1966 — Enrico Fermi-1, Monroe County, Michigan

A primary emergency planning zone (EPZ) is established within a 10-mile radius of each nuclear power plant. Within this zone plans are developed to protect the public through in-place sheltering and evacuation in the event of an accident. A secondary emergency management zone is established within a 50-mile radius around most plants, exist[s] for planning considerations which prevent the introduction of radioactive contamination into the food chain.



Jackson County Perspective

There are no nuclear power plants in Jackson County. However, portions of Columbia, Grass Lake, and Norvell Townships are located within the 50-mile EPZ for the Enrico Fermi 2 Nuclear Power Plant. No such events are anticipated to affect Jackson County, although there is a slight possibility that one could happen. For planning purposes, a tentative estimate is offered that the probability is less than one percent over the next decade.

14. Oil and Natural Gas Well Accidents

Oil and natural gas are produced from fields scattered across 63 counties in the Lower Peninsula including Jackson County, which is the site of 685 oil and gas wells. Although the industry has a fine safety record, the threat of accidental releases, fires and explosions exists. In addition to these hazards, many of Michigan's oil and gas wells contain extremely poisonous hydrogen sulfide (H₂S) gas.

Potential Hazards

The oil and gas industry is highly regulated in accordance with Michigan's Natural Resource and Environmental Act, PA 241 of 1994. The rules associated with PA 241 require classification of wells based upon a concept of radius of exposure. A formula is used to calculate the distance from the point of release at which hydrogen sulfide concentrations in the air reach 100 parts per million. Contingency plans for public protection are required for wells at which the 100 parts per million radius of exposure is greater than 100 feet. These plans require that procedures be implemented by company personnel in an emergency when hydrogen sulfide gas is released. These procedures include emergency contacts and their assigned duties and responsibilities, notification and evacuation procedures for the general public and procedures for igniting the well. In addition, site-specific information must be filed with the application for a drilling permit. These procedures are required to protect public safety. The Michigan Department of Natural Resources and the Environment regulations provide for buffer zones around wells and treatment in storage facilities. The following table summarizes the physiological responses likely to occur with exposure to H₂S:

Physiological Response to H ₂ S Exposure	
Parts per Million	Physiological Response
10 ppm	Beginning eye irritation.
50-100 ppm	Slight conjunctivitis & respiratory tract irritation with 1 hour of exposure.
100 – 200 ppm	Coughing, eye irritation, loss of sense of smell after 2-15 minutes. Altered respiration, pain in the eyes and drowsiness after 15-30 minutes followed by throat irritation after 1 hour. Several hours of exposure results in gradual increase in severity of these symptoms and death may occur within the next 48 hours.
200-300 ppm	Marked conjunctivitis & respiratory tract irritation after 1 hour of exposure.
500-700 ppm	Loss of consciousness & possibly death in 30 minutes to 1 hour.
700-1,000 ppm	Rapid unconsciousness, cessation of respiration & death.
1,000-2,000 ppm	Unconsciousness at once, with early cessation of respiration and death in a few minutes. Death may occur even if the individual is removed to fresh air at once.

Source: Michigan Hazard Analysis

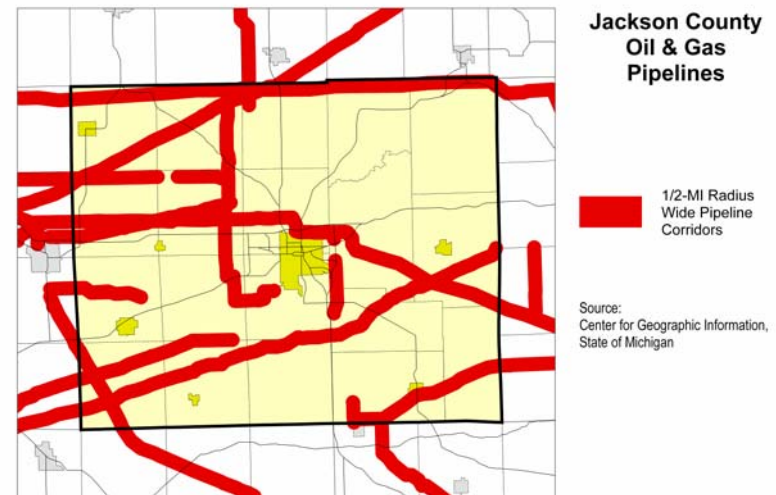
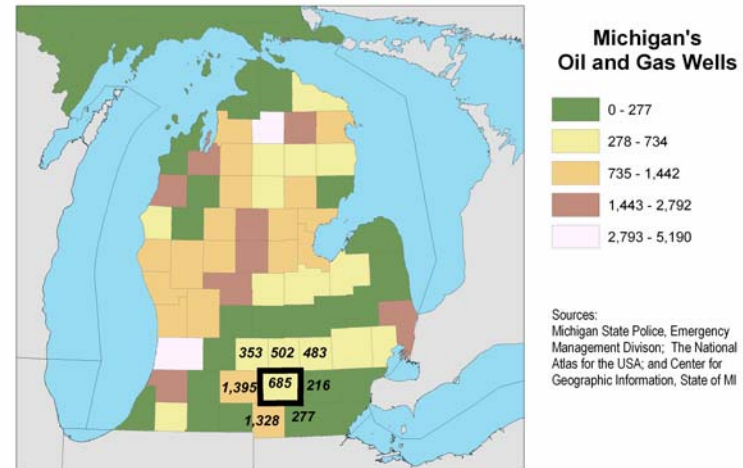
Jackson County Hazard Mitigation

Jackson County Perspective

According to the Jackson County Local Hazard Analysis, it is impossible to ascertain how many oil and gas incidents have actually occurred in Jackson County. Although many wells are present in the county, not all are currently active, and probability of any producing a major effect is quite low. For planning purposes, it is tentatively estimated that there is only about a 5% chance of any such event over the next decade.

15. Oil and Natural Gas Pipeline Accidents

Though often overlooked, petroleum and natural gas pipelines pose a real threat in many Michigan communities, including Jackson County. Petroleum and natural gas pipelines can leak or fracture and cause property damage, environmental contamination, injuries, and even loss of life. The vast majority of pipeline accidents that occur in Michigan are caused by third party damage to the pipeline, often due to construction or some other activity that involves trenching or digging operations. While it is true that the petroleum and natural gas industries have had a fine safety record, and that pipelines are by far the safest form of transportation for these products, the threat of fires, exposure, ruptures, and spills nevertheless exists. In addition to these hazards, there is the danger of hydrogen sulfide (H₂S) release. The table in the previous section



Potential Hazards

summarizes the physiological responses likely to occur with exposure to H₂S.

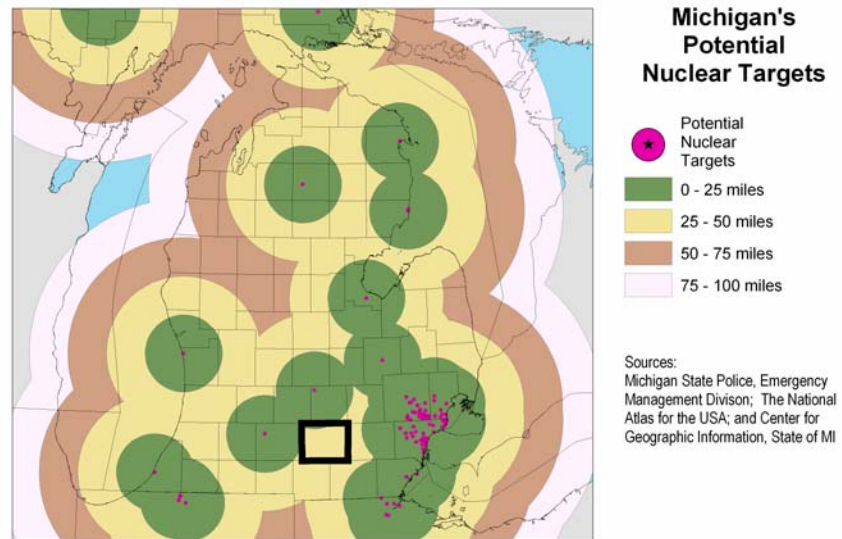
Jackson County Perspective

Pipelines traverse many parts of Jackson County. A section of pipeline ruptured in Blackman Township on June 7, 2000 releasing 75,000 gallons of gasoline into the environment and forcing the evacuation of more than 500 homes in a one square mile area around the spill. Wolverine Pipeline Company has expended in excess of \$10 million in response to this pipeline accident. A disruption in a strategic pipeline could also lead to an energy emergency in the county. Please note that the Jackson County Emergency Management Coordinator's office is also aware of a pipeline continuing through Blackman Township to the east, calling into question the accuracy of oil and gas pipeline map. For planning purposes, it is estimated that there is approximately a 10 to 15 percent chance of a major pipeline accident in Jackson County over the next 10 years.

16. Nuclear Attack

World events in recent years have greatly changed the nature of the nuclear attack threat against the United States. However, while the threat of attack is diminished, it is still a possibility due to the large number of nuclear weapons still in existence in present-day Russia and throughout the rest of the world. Based upon the Nuclear Attack Planning Base 1990 (NAPB-90), the Federal Emergency Management Agency categorizes seven potential types of nuclear targets:

- x commercial power plants,
- x chemical facilities,



Jackson County Hazard Mitigation

- x counterforce military installations,
- x other military bases,
- x military support industries,
- x refineries, and
- x political targets.

Jackson County Perspective

Although there is no reason to suspect that Jackson County would be specifically targeted for nuclear attack in the current geopolitical environment, as an area with a significant industrialized urban center, it was reasonably calculated to have been a likely target during old Cold War planning scenarios, and therefore for hazard mitigation and preparedness planning purposes, the threat will not be underplayed, tentatively estimated instead as approximately a 3% chance during the next 10 years (see also the information about the Terrorism hazard).

17. Sabotage/Terrorism/WMD

In today's world, sabotage/terrorism can take on many forms, although civilian bombings, assassination and extortion are probably the methods with which we are most familiar. Unfortunately, with advances in transportation and technology, sabotage/terrorism has now crossed the oceans into the United States. Equally alarming is the rapid increase in the scope and magnitude of sabotage/terrorism methods and threats, which now, in addition to bombings, include:

- x nuclear, chemical and biological weapons;
- x information warfare;
- x ethnic/religious/gender intimidation (hate crimes);
- x state and local militia groups that advocate the overthrow of the U.S. Government;
- x eco-extremism, designed to destroy or disrupt specific research or resource related activities;
- x pre-meditated attacks upon schools, workplaces, transportation systems or other places of public assembly; and
- x organized criminal enterprises and activities.

Potential Hazards

Jackson County Perspective

There are no known organizations within Jackson County involved in any type of sabotage, terrorism, or the proliferation of weapons of mass destruction. The following are occurrences of sabotage/terrorism that affected Southern Lower Michigan:

- x October/November 2001 — Attempted bus hijackings at various locations across the country.
- x October 2001 – Anthrax attacks at various locations across the country.
- x 2000-2001 – Attempted bombing/bomb manufacturing on various dates and locations in the state.
- x December 31, 1999 – Arson Fire (eco-extremism) “to research offices at Michigan State University’s Agricultural Hall.
- x Various dates and locations — premeditated workplace violence.

There is little reason to suspect that Jackson County would be specifically targeted for terrorism, but given the seemingly random nature of some such attacks (such as the Oklahoma City bombing) the possibility must not be totally discounted. For planning purposes, a tentative estimated chance of about 2% over the next decade might be assigned, unless new information, trends, or prediction techniques suggest otherwise.

18. Public Health Emergencies

Public health emergencies can take many forms including the following possibilities:

- x disease epidemics,
- x large-scale incidents of food or water contamination,
- x extended periods without adequate water and sewer services,
- x harmful exposure to chemical, radiological or biological agents, and
- x large-scale infestations of disease-carrying insects or rodents.

Public health emergencies can occur as primary events by themselves, or they may be secondary events to another disaster. They also have the potential to adversely impact a large number of people. Perhaps the greatest emerging public health threat would be the intentional release of a radiological, chemical or biological agent.

Jackson County Hazard Mitigation

cal agent. Fortunately, to date Michigan has not experienced such a release aimed at mass destruction. However, Michigan has experienced hoaxes and it is probably only a matter of time before an actual incident of that nature and magnitude does occur.

Jackson County Perspective

No public health emergencies have ever been declared in Jackson County. However, at least 3 statewide emergencies may have affected local residents:

- x **Chemical Contamination (Polybrominated Biphenyl)** — Thousands of cattle and other animals died in 1973 from poisoning after a chemical company accidentally sent bags of a fire retardant in conjunction with a shipment of a livestock feed supplement.
- x **Foodborne Contamination (Hepatitis A)** — Almost 300 cases of Hepatitis A in at least 4 school districts in the Spring of 1997 were caused by frozen strawberries.
- x **Communicable Disease Epidemic (Influenza Pandemic)** — “Influenza is an example of a potential public health emergency of [a] very large proportion.” Flu pandemics caused widespread deaths nationally in 1957-1958 and 1968-1969. People suffer from the flu in the county every year.

For planning purposes there is a rough estimate that over the next decade, a 30 or 40 percent chance of a major public health emergency may affect Jackson County. This estimate may need to be quickly revised should a serious pandemic occur and markedly increase risks to the county's population.

19. Drought

Drought is defined as a prolonged period of dryness as a result of a natural reduction in the amount of precipitation expected, over an extended period of time, usually a season or more in length. The entire state of Michigan is subject to the impacts of drought. Large urbanized areas are more vulnerable to water shortages and business disruptions due to the sheer number of water users that are competing for the limited water resources. In those areas, water management strategies typically have to be implemented to deal with the water shortage problems. Public health and safety concerns are also numerous — everything from

Potential Hazards

maintaining adequate water supply for firefighting to addressing the needs of the elderly, children, ill or impoverished individuals suffering from heat-related stress and illness.

In rural agricultural areas drought brings on a host of other problems to address. The agricultural areas of southern Lower Michigan are highly vulnerable to drought conditions that impact the quantity or quality of crops, livestock, and other agricultural activities. A prolonged drought can seriously impact local and regional income, which in turn has a rippling effect on the other components of the economy. Drought can also cause long-term problems that can affect the viability of some agricultural operations, and increase the threat of wildfire.

Jackson County Perspective

Jackson County receives approximately 32.5 inches of precipitation per year, except for a small area located on the northern border of the city which receives about 30.0 inches per year. As noted above, no measurement exists as to define a drought.

According to the Jackson County Local Hazard Analysis prepared by the Jackson County Sheriff's Department in 2003, a drought and heat wave affected Jackson County during the summer of 2001. It damaged or destroyed approximately one-third of the state's fruit and vegetable crops resulting in a U.S. Department of Agriculture Disaster Declaration for 82 of the state's 83 Counties. The drought/heat wave also caused water shortages in many areas in southeast Michigan, forcing officials to issue periodic water use restrictions.

Although Michigan documents have estimated that about 1 year in every 4 may qualify as a drought year in Michigan, over the long run (given that certain types of weather and hydrologic cycles cause adjacent years to be more similar to each other than a randomly selected year), it has been estimated that the chance of a serious drought event in Jackson County is not quite so frequent – perhaps only a 5% chance over the next decade of having a very serious effect on the county. The following table provides the recent history of droughts in Jackson County.

Jackson County Droughts, 2007-2009		
Date	Description	Location
4/22/2007	Red flag warnings issued for JACKSON	Jackson County

Jackson County Hazard Mitigation

Jackson County Droughts, 2007-2009		
Date	Description	Location
4/29/2007	Red flag warnings issued for JACKSON	Jackson County
8/1/2007 8/3/2007	Drought conditions persist across portions of southwest and west-central lower Michigan, with numerous locations receiving less than 2 inches of rainfall during the entire month of July. Precipitation deficits were increasing over the course of the summer months. Drought category 1 (D1: moderate drought) status affected JACKSON County and all points southwest of this line. It involves damage to vegetation and a high fire risk, with streams, reservoirs, and wells running low. 8/2/2007 drought category, precipitation deficits (inches below normal) since April 1. (Normal is 12.90" for Jackson County.) JACKSON: D1, -3.14" at Brooklyn. The Grand River at Jackson was low, its 8.55' being 63% of normal. On 8/3/2007, Red Flag Warnings were issued (just for the day) for JACKSON	Jackson County
8/17/2007	Red flag warnings had been issued for JACKSON A proclamation is issued by the Michigan DNR prohibiting the use of fire on forest lands and adjacent lands in JACKSON. This prohibits (except under specified conditions) the building of campfires, smoking, and the burning of materials within these counties.	Jackson County

Sources: Michigan Hazard Analysis, the National Climatic Data Center (NCDC) storm events database, reports from the Law Enforcement Information Network (LEIN), and input from plan participants.

20. Extreme Temperatures

Prolonged periods of extreme temperatures can pose severe and life-threatening problems. Although they are radically different in terms of initiating conditions, extremes of heat and cold share a commonality in that they both primarily affect the most vulnerable segments of the population – the elderly, children, impoverished individuals, and people in poor health. Extreme summer heat can result in heatstroke, heat exhaustion, heat syncope, and heat cramps. Extreme winter cold can result in hypothermia and frostbite.

Jackson County Perspective

A 30-year (i.e., 1951-1980) compilation of temperature data from a weather station reporting to the Michigan State Climatologists Office located in the vicinity of Jackson indicates a daily average temperature range of 14.6°F – 82.9°F. Over the 30-year period, a maximum temperature greater than 90°F was only reached on

Potential Hazards

14 days annually and less than 32°F on 57 days annually; a minimum temperature less than 32°F was reached on 143 days annually during that period and less than 0°F on 9 days annually. A low of -20°F was recorded in January, 1976 and a high of 103°F was recorded in July, 1977.

The National Oceanic and Atmospheric Administration's (NOAA) National Climatic Data Center (NCDC) recorded a temperature of 9°F (-35 to -30°F wind chill) during December, 1995 in 37 counties. The cold wave resulted in 3 deaths.

Several other significant heat waves listed in the Michigan Hazard Analysis:

- × Summer 1988 — 39 days with 90°F or more temperatures
- × July 1995 — 28 heat-related fatalities in the state
- × July 1999 — city residents were treated for heat-related problems statewide
- × June-August 2001 — heat stress index readings soared well above 100°F on many days
- × July 1936 — temperatures exceeded 100°F for several days, causing 570 deaths statewide

Jackson County Perspective

Extreme heat and cold are considered an annual occurrence within Jackson County, averaging 14 days per year with temperatures over 90 degrees Fahrenheit (which can have a greater impact in a dense urban environment such as the City of Jackson), and an average of 9 days per year with temperatures under zero degrees Fahrenheit.

As the following table indicates, extreme temperatures and extended periods of cold and heat do occur in Jackson County. The extreme temperatures listed in the table have resulted in statewide totals of three deaths. Due to the general nature of the data, the extent of the impact on Jackson County is impossible to assess. Extreme temperature events occurred two times in the 15-year period from 1995-2009 for a 13% probability of such an event in any given year.

Jackson County Extreme Temperature Events, 1995-2009	
Date	Description
12/09/1995	0400: Cold Wave, 3 deaths statewide. Low temperatures ranged from three above zero at Detroit to one below zero at WSFO White Lake during the period from the early morning on the 9th through the morning

Jackson County Hazard Mitigation

Jackson County Extreme Temperature Events, 1995-2009	
Date	Description
	on the 10th. On the 9th, winds averaging 20 to 25 mph combined with afternoon temperatures in the single digits to produce wind chills of 30 to 35 below zero.
8/1/2001	Heat Advisory for JACKSON, index at 105 degrees

Sources: Michigan Hazard Analysis, the National Climatic Data Center (NCDC) storm events database, reports from the Law Enforcement Information Network (LEIN), and local input from plan participants.

21. Hail

Hail is a product of the strong thunderstorms that frequently move across the state. As one of these thunderstorms passes over, hail usually falls near the center of the storm, along with the heaviest rain. Most hailstones range in size from a pea to a golf ball, but hailstones larger than baseballs have occurred with the most severe thunderstorms. Hail is formed when strong updrafts within the storm carry water droplets above the freezing level, where they remain suspended and continue to grow larger until their weight can no longer be supported by the winds. They finally fall to the ground, battering crops, denting autos, and injuring wildlife and people. Large hail is a characteristic of severe thunderstorms, and it may precede the occurrence of a tornado. The National Weather Service began recording hail activity in Michigan in 1967. Statistics since that time indicated that approximately 50% of the severe thunderstorms that produce hail have occurred during the months of June and July and nearly 80% have occurred during the prime growing season of May through August.

Jackson County Perspective

Hail is considered an expected annual occurrence, although the size and impact of hail is difficult to predict since it tends to have only a localized impact. Jackson County experiences an average of between 40 and 60 thunderstorm days per year, and expects several severe thunderstorm events to occur each year that are capable of producing damaging hail. A total of 60 recorded incidents of hail storms occurred in Jackson County from 1958 through 2009 - a period of 51 years. Based on this, Jackson County sees an average of 1.2 hail storms per year. The following table provides the history of hail storms in the County from 1958 through 2009. These events have resulted in \$405,000 in property damage and \$225,000 in crop damage. All of the reports of damage have occurred since 1998 which suggests improved reporting rather than a re-

Potential Hazards

cent increase in hail storm intensity. Eleven storms featured hail a minimum of 1.75" in size with 4.25" hail reported on one occasion in Rives Township in 2004.

Jackson County Hail Events, 1958-2009		
Date	Description	MCD's
08/03/1958	1400: Hail, 2.00 inch., LAT/LON: 42°17'N / 84°30'W	Sandstone
06/01/1961	1500: Hail, 2.00 inch., LAT/LON: 42°17'N / 84°30'W	Sandstone
05/31/1962	1443: Hail, 0.75 inch., LAT/LON: 42°12'N / 84°24'W	Summit
08/08/1962	1715: Hail, 0.75 inch., LAT/LON: 42°05'N / 84°11'W	Columbia
04/17/1963	1650: Hail, 1.25 inch., LAT/LON: 42°17'N / 84°30'W	Sandstone
08/27/1965	1730: Hail, 0.75 inch., LAT/LON: 42°05'N / 84°41'W	Pulaski
07/04/1977	0430: Hail, 1.00 inch., LAT/LON: 42°16'N / 84°28'W	Blackman
08/02/1980	0300: Hail, 1.25 inch., LAT/LON: 42°12'N / 84°21'W	Napoleon
04/28/1981	1345: Hail, 1.00 inch., LAT/LON: 42°11'N / 84°23'W	Summit
06/09/1985	0130: Hail, 0.75 inch., LAT/LON: 42°14'N / 84°24'W	Jackson
07/09/1985	2110: Hail, 1.50 inch., LAT/LON: 42°23'N / 84°41'W 2128: Hail, 1.50 inch., LAT/LON: 42°23'N / 84°41'W	Springport
07/25/1988	1810: Hail, 1.75 inch., LAT/LON: 42°15'N / 84°36'W	Parma
03/14/1989	1654: Hail, 1.00 inch., LAT/LON: 42°16'N / 84°28'W 1714: Hail, 0.75 inch., LAT/LON: 42°23'N / 84°11'W	Blackman Waterloo
05/30/1989	1830: Hail, 0.75 inch., LAT/LON: 42°15'N / 84°26'W	Jackson
05/31/1989	1700: Hail, 0.75 inch., LAT/LON: 42°15'N / 84°36'W	Parma
03/27/1991	1915: Hail, 2.75 inch., LAT/LON: 42°15'N / 84°26'W	Jackson
04/09/1991	1428: Hail, 2.75 inch., LAT/LON: 42°23'N / 84°41'W	Springport
07/04/1992	1830: Hail, 0.75 inch., LAT/LON: 42°19'N / 84°24'W	Blackman
10/08/1992	1940: Hail, 1.75 inch., LAT/LON: 42°14'N / 84°24'W	Jackson
06/13/1994	1621: Hail, 0.75 inch. Although a report was made by trained spotter, the exact location is unavailable.	Unavailable
07/24/1996	11:40 AM: Thunderstorm Wind/hail in Concord. Thunderstorm winds, combined with half-inch hail, knocked down numerous tree limbs.	Concord
09/11/1996	02:50 PM: Hail, LAT/LON: 42°14'N / 84°24'W, 0.88 inch. Several reports of dime-sized to nickel-sized hail were received from the city of Jackson.	Jackson
07/08/1997	05:55 PM: Hail, LAT/LON: 42°06'N / 84°33'W, 0.88 inch. Jackson Central Dispatch relayed	Hanover

Jackson County Hazard Mitigation

Jackson County Hail Events, 1958-2009		
Date	Description	MCD's
	reports from Hanover Township fire officials of nickel-sized hail.	
07/14/1997	05:50 PM: Hail 4 Miles South East of Springport, LAT/LON: 42°21'N / 84°38'W, 0.88 inch. Strong to locally severe thunderstorms developed, with isolated reports received of up to nickel-sized hail and winds gusting to 70 mph. Downed trees and power lines cut power to approximately 48,000 Consumers Energy customers in southwest and south central Lower Michigan. No injuries were reported.	Springport
05/31/1998	05:19 AM: Hail at Hanover, LAT/LON: 42°06'N / 84°33'W, 1.50 inches. Numerous sources indicated that the widespread and severe damages from a fast-moving line of thunderstorms during the early morning hours of Sunday, May 31st, were caused primarily by strong straight-line winds and isolated wet microburst winds. This derecho event produced wide-spread 60 to 90 mph wind gusts, which caused extensive tree and structural damage and left over 861,000 homes and businesses without electricity across Michigan's Lower Peninsula. Consumers Energy reported that the derecho event was the most destructive weather event in the company's history, leaving over 600,000 of its customers without power (Consumers Energy is the largest utility company in western and mid Lower Michigan). There were 4 storm-related fatalities reported in the state and 146 injuries (mostly minor). State-wide, approximately 250 homes were destroyed, 12,250 homes damaged, 34 businesses destroyed, and 829 businesses damaged. (This was subsequently denoted as federally-declared disaster number 1226.) Damage estimates across the above listed counties totaled over \$166 Million. At 05:47 AM: Hail at Waterloo, LAT/LON: 42°21'N / 84°08'W, 1.00 inch.	Hanover Waterloo
06/12/1998	04:25 PM: Hail at Vandercook Lake, LAT/LON: 42°11'N / 84°23'W, 0.88 inch. Several severe thunderstorms included a supercell over southern Barry County, which propagated east-southeast across Calhoun and Jackson Counties. Downed trees and power lines and lightning strikes knocked out power to 22,000 in southern Michigan, (most of whom were in Barry, Calhoun, and Wayne Counties). At 04:40 PM: Thunderstorm Wind/Hail 1 Mile South West of Brooklyn, \$25,000 property damage. Jackson County Emergency Management Coordinator reported trees and power lines down in the vicinity of the Michigan International Speedway, located 1 mile south of Brooklyn in southern Jackson County. Three-quarter inch diameter hail also fell in the same location. No injuries or significant structural damage was reported.	Summit Columbia
06/24/1998	05:04 PM: Jackson County Emergency Management reported a funnel cloud near the inter-	Rives

Potential Hazards

Jackson County Hail Events, 1958-2009		
Date	Description	MCD's
	section of Lansing Ave. and Maple Grove Road in southern Rives Township, approximately 6 miles north of the city of Jackson. Scattered severe thunderstorms were characterized by several large hail reports, including golf-ball sized hail reports received from Jackson County and hail of 2 to 3 inches in diameter associated with a supercell thunderstorm as it tracked east-southeast across southern Ingham and northern Jackson County. This storm resulted in several wind damage and large hail reports, and an F1 tornado touched down in north central Jackson County near Layton Corners. No injuries were reported with the tornadoes, but damage was estimated at half a million dollars across Henrietta and Waterloo Townships in northern Jackson County. Hail was estimated to have reached 2 to 3 inches in diameter in association with this tornadic storm. The most significant damage was reported around the Pleasant Lake area, where several boats were overturned and several homes reported minor to moderate structural damage. Along North Meridian Road from near Layton Corners along the west end of Pleasant Lake, 2 homes reported destroyed garages. Pleasant Lake County Park was closed due to downed trees. The Waterloo State Recreation Area reported hundreds of trees uprooted, which resulted in the closing of some roads and horse trails. 5,800 were without power in the affected areas of Henrietta and Waterloo Townships. Damage was estimated at approximately \$500,000. At 05:25 PM: Hail 2 Miles North of Grass Lake, LAT/LON: 42°17'N / 84°13'W, 1.75 inch. Jackson County Emergency Management reported golf ball-sized hail on Morrissey Road in Grass Lake Township, 2 miles north of the city of Grass Lake.	Waterloo Grass Lake
06/26/1998	01:10 AM: Thunderstorm Wind at Jackson, LAT/LON: 42°14'N / 84°24'W, 52 knots. Scattered reports of wind damage and hail were received across west central, southwest, and south central Lower Michigan, as widespread thunderstorm activity moved across Michigan's Lower Peninsula during the late evening hours of Thursday, June 25th, and early morning hours of Friday, June 26th. No injuries were reported, but an estimated 22,000 people lost power across the southern third of Michigan's Lower Peninsula, due to downed trees and power lines.	Unavailable
05/17/1999	04:00 PM: Hail, 0.75 inch, \$50,000 property damage. 0.75" hail was reported in Parma, LAT/LON: 42°15'N / 84°36'W. There were also a few reports of hail 0.75" - 1.00" in diameter.	Parma
06/09/1999	04:22 AM: Hail, LAT/LON: 42°23'N / 84°27'W, 0.75 inch. Hail was observed in Rives Junction, where dime-sized hail covered the ground.	Rives
09/28/1999	06:28 PM: A thunderstorm became severe, producing pea-sized hail and wind gusts to 60	Jackson

Jackson County Hazard Mitigation

Jackson County Hail Events, 1958-2009		
Date	Description	MCD's
	mph.	
03/15/2000	07:05 PM: Hail at Spring Arbor, LAT/LON: 42°12'N / 84°33'W, 1.50 inch. One thunderstorm produced hail (1.5" diameter) in Spring Arbor. There were also several reports of very small hail along the Interstate 94 corridor from Kalamazoo to Jackson.	Spring Arbor
07/14/2000	02:08 PM: Hail, LAT/LON: 42°23'N / 84°27'W, 0.88 inch., \$20,000 property damage, \$10,000 crop damage. Thunderstorms produced several reports of large hail during the afternoon hours. 0.88" diameter hail was reported in Rives Junction at 2:08 p.m. Severe thunderstorm warnings were issued. Marble to nickel-sized hail was reported in the Rives Junction and Pleasant Lake areas.	Rives Henrietta
08/02/2000	07:15 PM: Hail, 1.25 inch., LAT/LON: 42°23'N / 84°27'W, \$30,000 property damage, \$10,000 crop damage. Severe thunderstorms developed in the afternoon and evening. Hail of 1.25" was reported in Rives Junction and broke the windshield of a car. Wind damage included a 12-inch diameter tree limb that was blown down at 7:15 p.m. Severe thunderstorm warnings were issued.	Rives
07/29/2001	07:10 PM, Thunderstorm Wind, Parma to Spring Arbor, Begin LAT/LON: 42°15'N / 84°36'W, End LAT/LON: 42°12'N / 84°33'W, 53 Knots, 25,000 property damage. A large severe weather outbreak across southern and central lower Michigan during the late afternoon and evening hours resulted in numerous reports of downed trees and power lines, and a few reports of large hail. A 911 center in Spring Arbor (Jackson county) reported trees down in that area.	Unspecified
4/20/2003	03:25 PM, Hail, LAT/LON: 42°14'N / 84°24'W, 1.00 inch., \$10,000 property damage. One and three quarters inch hail was reported by Blackman township police and fire personnel 5 miles north of Jackson. A report of a large tree down was also received from Spring Arbor, and a one foot diameter pine tree was snapped in half 5 miles southwest of Spring Arbor.	Blackman Spring Arbor
4/30/2003	10:30 PM, Hail, LAT/LON: 42°14'N / 84°24'W, 1.00 inch., \$10,000 property damage. One inch diameter hail was reported one mile north of Jackson.	Blackman
5/1/2003	2330:, One inch hail in Jackson. (also listed as flooding and hail)	Jackson
5/9/2003	11:10 PM, Hail, LAT/LON: 42°07'N / 84°21'W, 1.00 inch., \$15,000 property damage, \$15,000 crop damage. One inch diameter hail was reported about one mile west of Brooklyn near Clark Lake.	Columbia
5/17/2004	01:15 PM: Hail, 1.75 inch., Rives Junction to Munith, Begin LAT/LON: 42°23'N / 84°27'W,	Northern Jackson

Potential Hazards

Jackson County Hail Events, 1958-2009		
Date	Description	MCD's
	End LAT/LON: 42°23'N / 84°15'W, \$40,000 property damage, \$40,000 crop damage. The broadcast media reported one and three quarters inch diameter hail near I-127 in Rives Junction and a trained spotter reported one and three quarter inch diameter hail in Munith. Severe thunderstorm warning issued for JACKSON	County
5/21/2004	08:40 PM, Hail, 2.00 inch., LAT/LON: 42°14'N / 84°24'W, \$30,000 property damage, \$30,000 crop damage. Two inch diameter hail was reported by the public in Jackson.	Jackson
5/21/2004	12:42 PM, Hail, 0.88 inch., LAT/LON: 42°14'N / 84°24'W, \$40,000 property damage. Seven eighths inch diameter hail was reported 5 miles south of Jackson, and several power poles were blown down near Jackson as well.	Liberty
6/9/2004	12:35 PM, Hail, 4.25 inch., LAT/LON: 42°23'N / 84°27'W, \$50,000 property damage, \$50,000 crop damage. Four and one quarters inch diameter hail was reported at the intersection of Berry and US-127 roads. Several reports of smaller hail were also reported in and near Rives Junction.	Rives
6/5/2005	06:00 PM, Thunderstorm Wind, Parma to Springport, Begin LAT/LON: 42°15'N / 84°36'W, End LAT/LON: 42°23'N / 84°41'W, 52 Knots, \$10,000 property damage. A large severe weather outbreak occurred across our area resulting in numerous downed tree limbs and power lines, many reports of large hail and many reports of downed power lines. Several trees were blown down across area roads. There were several reports of three quarters to inch diameter hail and estimated wind gusts to 60 m.p.h.	Parma/Springport
6/30/2005	09:55 AM, Hail at Brooklyn, LAT/LON: 42°06'N / 84°15'W, 0.88 inch., \$10,000 property damage, \$10,000 crop damage.	Brooklyn
7/25/2005	10:04 PM, Thunderstorm Wind, 53 Knots, LAT/LON: 42°06'N / 84°33'W, \$25,000 property damage. A large severe weather outbreak occurred and produced numerous reports of wind damage, one tornado and one isolated hail report. As a result of severe thunderstorm wind gusts, there were numerous reports of wind damage including downed trees, limbs, and power lines across the area.	Hanover
9/22/2005	04:49 PM, Hail, 1.75 inch., LAT/LON: 42°15'N / 84°13'W, \$15,000 property damage, \$10,000 crop damage. The public reported one and three quarters inch diameter hail in Grass Lake.	Grass Lake
4/22/2006	06:31 PM, Hail, LAT/LON: 42°06'N / 84°33'W, 1.00 inch., \$10,000 property damage, \$5,000 crop damage. The public in Hanover reported one inch diameter hail.	Hanover

Jackson County Hazard Mitigation

Jackson County Hail Events, 1958-2009		
Date	Description	MCD's
	7:01 PM, Hail, LAT/LON: 42°10'N / 84°15'W, 1.00 inch., \$10,000 property damage, \$5,000 crop damage. Law enforcement three miles south of Napoleon reported one inch diameter hail.	Napoleon
6/19/2006	11:05 AM, Hail, 0.75 inch., LAT/LON: 42°11'N / 84°38'W, \$5,000 property damage, \$5,000 crop damage. Three quarters inch hail was reported in Concord.	Concord
	12:00 PM, Hail, LAT/LON: 42°06'N / 84°15'W, 1.25 inch., \$20,000 property damage, \$15,000 crop damage. Hail ranging anywhere from one and a quarter to seven eighths inches in diameter was reported in Brooklyn.	Brooklyn
06/28/2006	01:55 PM, Hail, LAT/LON: 42°06'N / 84°24'W, 0.75 inch., \$5,000 property damage, \$5,000 crop damage. A trained spotter reported three quarters inch hail in Liberty.	Liberty
5/15/2007	17:18 PM, Thunderstorm Wind 1 Mile North East of Pleasant Lake, LAT/LON: 42°24'N/84°19'W, 50 Knots, \$10,000 property damage. EVENT NARRATIVE: A combination of six trees and large limbs were blown down on a golf course one mile northeast of Pleasant Lake in Jackson county. EPISODE NARRATIVE: Severe storms produced several reports of large hail and high winds which brought down several trees and branches in Jackson County.	Henrietta
6/02/2007	18:15 PM, Thunderstorm Wind 3 Miles West North West of Pleasant Lake, LAT/LON: 42°25'N/84°23'W, 52 Knots, \$20,000 property damage. EVENT NARRATIVE: Multiple trees and power lines were blown down along the Jackson County line. EPISODE NARRATIVE: Severe storms affected much of southwestern lower Michigan, resulting in several reports of large and numerous reports of wind damage.	Henrietta
6/27/2007	JACKSON, at 1645, dime-sized hail (between 0.5" and 0.75" in diameter) was reported 5 miles north of Jackson.	Blackman
1/7/2008	21:54 PM, Thunderstorm Wind 2 Miles North, North East of Horton, LAT/LON: 42°10'N / 84°30'W, 52 Knots, \$2,000 property damage. EVENT NARRATIVE: One tree was blown down near the intersection of Reynolds and Horton roads three miles southeast of Spring Arbor. EPISODE NARRATIVE: A rare mid winter severe weather event occurred and resulted in several reports of high winds and large hail. There were few reports of damage associated with the severe weather. A tree was blown down just southeast of Spring Arbor.	Spring Arbor
4/11/2008	15:55 PM, Hail 1 Mile North of Parma, LAT/LON: 42°15'N / 84°36'W, 1.00 inch., \$10,000 property damage, \$5,000 crop damage. EVENT NARRATIVE: Hail briefly covered the	Parma

Potential Hazards

Jackson County Hail Events, 1958-2009		
Date	Description	MCD's
	ground in Parma and there were also several reports of broken windshields. EPISODE NARRATIVE: A round of severe thunderstorms resulted in numerous reports of large hail during the afternoon hours of April the eleventh. Hail briefly covered the ground at several locations and there were several reports of broken windshields from hail in Parma in Jackson County.	
6/6/2008	17:45 PM, Thunderstorm Wind 1 Mile North West of Spring Arbor, LAT/LON: 42°12'N / 84°33'W, 52 knots. EVENT NARRATIVE: Law enforcement reported that a couple of trees were blown down. EPISODE NARRATIVE: Severe thunderstorm wind gusts resulted in several reports of significant wind damage. Several reports of large hail were also received.	Spring Arbor
7/2/2008	17:35 PM, Hail 1 Mile West of Knollwood Park, LAT/LON: 42°15'N / 84°23'W, 0.88 inch. A severe weather outbreak on July 2 resulted in numerous reports of wind damage and large hail. Another area of large hail stretched from Allegan county east through Ingham county and south into Kalamazoo and Jackson counties. The hail was large enough to damage some crops.	Jackson
7/16/2008	20:53 PM, Thunderstorm Wind 1 Mile North West of Rives Junction, LAT/LON: 42°23'N / 84°27'W, 52 knots. EVENT NARRATIVE: Law enforcement in Jackson county reported that a couple of trees were blown down. One was blown down on Spring Court and another was blown down near Zion Road and East Berry Road. EPISODE NARRATIVE: Numerous severe thunderstorms across southwest Michigan resulted in wind damage and large hail.	Rives
4/25/2009	16:40 PM, Thunderstorm Wind 1 Mile East South East of Pleasant Lake to End Location: 7 Miles North of Waterloo, Begin LAT/LON: 42°24'N / 84°18'W, End LAT/LON: 42°27'N / 84°08'W, 53 knots. EVENT NARRATIVE: Scattered to widely scattered tree damage occurred including occasional uprooted trees along a 9 mile stretch from 2 miles west-southwest of Pleasant Lake to 2.5 miles southwest of Stockbridge. The damage swath was 4 to 6 miles wide. A measured 53 knot gust with pea sized hail occurred just north of Batteese Lake. The damage crossed into extreme southeast Ingham County at 42.4284 north latitude and 84.2094 west longitude. The damage continued east-northeast to at least the Livingston County line.	Henrietta
8/9/2009	19:20 PM, Hail 3 Miles South of Rives Junction, LAT/LON: 42°20'N / 84°27'W, 0.70 inch. EVENT NARRATIVE: No damage reported in association with the hail.	Rives

Jackson County Hazard Mitigation

Sources: Michigan Hazard Analysis, the National Climatic Data Center (NCDC) storm events database, reports from the Law Enforcement Information Network (LEIN), and local input from plan participants.

22. Lightning

Lightning is a random and unpredictable product of a thunderstorm's tremendous energy. The perception of lightning as a minor hazard lingers despite the fact that it damages many structures and kills and injures more people on average in the United States per year than tornadoes or hurricanes.

In terms of property losses from lightning, statistics vary widely according to source. However, annual lightning-related property damages are conservatively estimated at several billion dollars per year, and those losses are expected to continue to grow as the use of computers and other lightning-sensitive electronic components becomes more prevalent. Unfortunately, lightning has [also] taken a tremendous toll on Michigan's citizens in terms of injury and loss of life. Since 1959, Michigan has incurred 101 lightning deaths, 711 lightning injuries, and 812 lightning casualties (deaths and injuries combined) – consistently ranking it near the top of the nation in all three categories. One major lightning event was reported in Jackson County, and a total of 244 statewide, between 1993 and 2004 to the National Climatic Data Center. One injury was attributed to lightning in Jackson County and 13 deaths and 124 injuries statewide. The lightning also accounted for \$20 million in property damage statewide.

Jackson County Perspective

Lightning is considered an expected annual occurrence in Jackson County, but with an impact that is difficult to predict and tends to be very localized unless it causes power failures or large fire events to occur. Jackson County experiences an average of between 40 and 60 thunderstorm days per year, any of which may

Lightning related Deaths & Injuries in Michigan 1959 - July 2004			
	Deaths	Injuries	Casualties
Open fields & rec areas	38.4%	39.7%	39.5%
Unspecified locations	18.2%	36.1%	33.8%
Under a tree	26.3%	15.0%	16.4%
Comm. equip & heavy equipment/machinery	6.1%	5.5%	5.6%
Water related (boating, fishing, swimming, etc.)	11.1%	3.8%	4.7%
	99	693	792

Potential Hazards

produce damaging lightning strikes. The county expects several severe thunderstorm events to occur each year that are characterized by the production of great amounts of lightning activity, some of which can be expected to produce damage or injuries. Based on the recent history of past lightning events within the county, the chance of a damaging lightning strike can be estimated at about 8% per year. The following lightning events in Jackson County are provided in the NCDC database:

Jackson County Lightning Events, 1994-2009		
Date	Description	MCD's
06/13/1994	1300: Lightning, 1 injury. A man cleaning out a storm drain during a thunderstorm was struck by lightning and thrown across the road. He was treated at a local hospital for minor injuries.	Unspecified
08/16/1997	02:45 PM: LAT/LON: 42°14'N / 84°24'W. Local utility companies reported approximately 55,000 power outages during the afternoon and evening across far southern Michigan, with most caused by lightning strikes, but some due to downed trees and utility poles (also listed under thunderstorm wind).	Jackson
07/21/1998	04:30 PM: LAT/LON: 42°14'N / 84°24'W. Jackson area law enforcement reported numerous trees and power lines downed in Blackman Township and the city of Jackson. The Jackson Citizen Patriot reported that a Jackson woman was trapped when the wind dropped a large branch and live power lines over her car on Sixth Street, just north of W. Morrell. Damage to the car was minor and the woman was not injured. Over 200 power lines were downed by the storm and transformers were damaged by lightning strikes. Approximately 5,000 residents lost power in Jackson County. Damage estimates were not available. (Also reported under thunderstorm wind).	Jackson Blackman Township

Sources: Michigan Hazard Analysis, the National Climatic Data Center (NCDC) storm events database, reports from the Law Enforcement Information Network (LEIN), and local input from plan participants.

Jackson County Hazard Mitigation

23. Severe Wind Events and Tornadoes

Severe Wind Events

Severe winds have, on occasion, had devastating effects on Michigan. Severe wind events are characterized by wind velocities of 58 miles per hour or greater with gusts sometimes exceeding 74 miles per hour.

Jackson County Perspective

A total of 141 severe wind events were reported in Jackson County between 1950 and 2004 according to the National Climatic Data Center. Recorded wind speeds for 66 of the events ranged from 42 knots to 87 knots. Severe winds accounted for \$7.5 million in property damages. Unfortunately, 1 death and 2 injuries were attributed to severe winds. The following table provides NCDC data on severe wind events in Jackson County from 1956 to 2009.

Jackson County Severe/Strong/High Wind Events, 1962-2009		
Date	Description	MCD's
05/11/1956	1845: Thunderstorm Wind, LAT/LON: 42°17'N / 84°17'W	Leoni
05/30/1956	1435: Thunderstorm Wind, LAT/LON: 42°17'N / 84°30'W	Blackman
05/14/1957	2215: Thunderstorm Wind, 50 Knots, LAT/LON: 42°17'N / 84°30'W	Blackman
08/03/1958	1400: Thunderstorm Wind, LAT/LON: 42°17'N / 84°30'W	Blackman
08/26/1959	1925: Thunderstorm Wind, LAT/LON: 42°23'N / 84°41'W	Springport
07/22/1960	1600: Thunderstorm Wind, LAT/LON: 42°17'N / 84°30'W.	Blackman
06/01/1961	1329: Thunderstorm Wind, 50 Knots, LAT/LON: 42°17'N / 84°30'W.	Blackman
09/30/1961	1920: Thunderstorm Wind, 70 Knots, LAT/LON: 42°17'N / 84°30'W	Blackman
08/08/1962	1715: Thunderstorm Wind, LAT/LON: 42°05'N / 84°11'W.	Norvell
11/12/1965	2000: Thunderstorm Wind, 50 Knots, LAT/LON: 42°17'N / 84°24'W.	Jackson
04/02/1967	1556: Thunderstorm Wind, LAT/LON: 42°17'N / 84°24'W.	Jackson
06/16/1967	1700: Thunderstorm Wind, 50 Knots, LAT/LON: 42°17'N / 84°30'W.	Blackman
10/24/1967	2030: Thunderstorm Wind, LAT/LON: 42°17'N / 84°30'W.	Blackman
08/16/1968	1915: Thunderstorm Wind, LAT/LON: 42°17'N / 84°30'W.	Blackman
04/27/1969	1930: Thunderstorm Wind, LAT/LON: 42°17'N / 84°11'W.	Grass Lake
09/06/1969	1400: Thunderstorm Wind, LAT/LON: 42°05'N / 84°35'W	Hanover

Potential Hazards

Jackson County Severe/Strong/High Wind Events, 1962-2009		
Date	Description	MCD's
07/02/1970	2020: Thunderstorm Wind, 50 Knots, LAT/LON: 42°17'N / 84°30'W.	Blackman
04/12/1971	0900: Thunderstorm Wind, LAT/LON: 42°12'N / 84°41'W	Concord
04/12/1971	0930: Thunderstorm Wind, LAT/LON: 42°12'N / 84°11'W.	Norvell
05/19/1971	1355: Thunderstorm Wind, LAT/LON: 42°17'N / 84°30'W.	Blackman
06/12/1973	1200: Thunderstorm Wind, LAT/LON: 42°06'N / 84°18'W.	Columbia
08/09/1973	1100: Thunderstorm Wind, 50 Knots, LAT/LON: 42°16'N / 84°28'W.	Blackman
05/25/1975	1515: Thunderstorm Wind, LAT/LON: 42°11'N / 84°38'W.	Concord
08/21/1975	1400: Thunderstorm Wind, LAT/LON: 42°23'N / 84°27'W.	Rives
05/05/1976	1830: Thunderstorm Wind, LAT/LON: 42°14'N / 84°24'W.	Jackson
05/17/1977	1750: Thunderstorm Wind, 65 Knots, LAT/LON: 42°16'N / 84°28'W.	Blackman
05/20/1978	1222: Thunderstorm Wind, LAT/LON: 42°24'N / 84°36'W.	Sandstone
05/13/1980	1455: Thunderstorm Wind, LAT/LON: 42°14'N / 84°24'W	Jackson
06/01/1980	2020: Thunderstorm Wind, 52 Knots, LAT/LON: 42°14'N / 84°24'W.	Jackson
07/16/1980	0607: Thunderstorm Wind, 55 Knots, LAT/LON: 42°16'N / 84°28'W.	Blackman
07/20/1980	2205: Thunderstorm Wind, 52 Knots, LAT/LON: 42°10'N / 84°15'W.	Napoleon
04/04/1981	0400: Thunderstorm Wind, LAT/LON: 42°14'N / 84°24'W.	Jackson
06/20/1982	1930: Thunderstorm Wind, LAT/LON: 42°14'N / 84°29'W.	Spring Arbor
06/27/1983	1445: Thunderstorm Wind, LAT/LON: 42°14'N / 84°29'W.	Spring Arbor
07/01/1983	1130: Thunderstorm Wind, LAT/LON: 42°14'N / 84°29'W.	Spring Arbor
07/17/1983	1020: Thunderstorm Wind, LAT/LON: 42°14'N / 84°29'W.	Spring Arbor
07/21/1983	1430: Thunderstorm Wind, LAT/LON: 42°14'N / 84°29'W.	Spring Arbor
07/21/1983	1624: Thunderstorm Wind, LAT/LON: 42°14'N / 84°29'W.	Spring Arbor
07/29/1983	1615: Thunderstorm Wind, LAT/LON: 42°14'N / 84°29'W.	Spring Arbor
07/29/1983	1715: Thunderstorm Wind, LAT/LON: 42°14'N / 84°29'W.	Spring Arbor
07/29/1983	1735: Thunderstorm Wind, LAT/LON: 42°09'N / 84°29'W.	Hanover
07/29/1983	1815: Thunderstorm Wind, LAT/LON: 42°14'N / 84°29'W.	Spring Arbor
05/18/1984	1830: Thunderstorm Wind, LAT/LON: 42°14'N / 84°29'W.	Spring Arbor
09/25/1984	1637: Thunderstorm Wind, LAT/LON: 42°05'N / 84°16'W.	Columbia
06/09/1985	0130: Thunderstorm Wind, 52 Knots, LAT/LON: 42°14'N / 84°24'W.	Jackson
07/05/1985	0130: Thunderstorm Wind, LAT/LON: 42°09'N / 84°29'W.	Hanover

Jackson County Hazard Mitigation

Jackson County Severe/Strong/High Wind Events, 1962-2009		
Date	Description	MCD's
07/09/1985	2135: Thunderstorm Wind, LAT/LON: 42°14'N / 84°29'W.	Hanover
09/08/1985	1600: Thunderstorm Wind, LAT/LON: 42°14'N / 84°29'W.	Hanover
04/28/1986	1300: Thunderstorm Wind, LAT/LON: 42°15'N / 84°13'W	Grass Lake Village
05/17/1986	1945: Thunderstorm Wind, 52 Knots, LAT/LON: 42°14'N / 84°24'W.	Jackson
07/25/1986	1520: Thunderstorm Wind, LAT/LON: 42°15'N / 84°26'W.	Jackson
09/26/1986	1630: Thunderstorm Wind, LAT/LON: 42°06'N / 84°15'W.	Brooklyn
05/30/1987	1805: Thunderstorm Wind, LAT/LON: 42°15'N / 84°26'W.	Jackson
05/30/1987	1847: Thunderstorm Wind, 50 Knots, LAT/LON: 42°14'N / 84°24'W.	Jackson
06/29/1987	1615: Thunderstorm Wind, LAT/LON: 42°15'N / 84°26'W.	Jackson
07/20/1987	1805: Thunderstorm Wind, 52 Knots, 1 injury, LAT/LON: 42°15'N / 84°26'W.	Jackson
08/05/1988	1435: Thunderstorm Wind, LAT/LON: 42°15'N / 84°26'W.	Jackson
09/19/1988	2000: Thunderstorm Wind, LAT/LON: 42°15'N / 84°26'W.	Jackson
05/30/1989	1729: Thunderstorm Wind, LAT/LON: 42°15'N / 84°26'W.	Jackson
09/07/1990	0100: Thunderstorm Wind, LAT/LON: 42°15'N / 84°26'W.	Jackson
06/14/1991	1550: Thunderstorm Wind, 52 Knots, 1 injury, LAT/LON: 42°15'N / 84°25'W	Jackson
06/15/1991	1600: Thunderstorm Wind, LAT/LON: 42°12'N / 84°33'W.	Spring Arbor
07/07/1991	1805: Thunderstorm Wind, 62 Knots, LAT/LON: 42°12'N / 84°33'W.	Spring Arbor
07/07/1991	1820: Thunderstorm Wind, LAT/LON: 42°15'N / 84°26'W.	Jackson
06/17/1992	1805: Thunderstorm Wind, 56 Knots, LAT/LON: 42°12'N / 84°29'W.	Summit
06/17/1992	1838: Thunderstorm Wind, 52 Knots, LAT/LON: 42°14'N / 84°24'W.	Jackson
06/18/1992	1345: Thunderstorm Wind, 52 knots, LAT/LON: 42°10'N / 84°15'W.	Napoleon
06/28/1994	1900: Thunderstorm Winds, \$1,000 property damage. In addition to a tree falling on a house, additional tree and power line damage was reported.	Unspecified
07/06/1994	2115: Thunderstorm Winds, 13 Miles North East of Jackson. Numerous trees were reported down.	Waterloo
11/18/1994	1200: High Winds, 62 knots, \$1,000,000 property damage. High winds affected much of Michigan. Gusts of 40 to 50 mph were widespread throughout the state	Unspecified
07/04/1995	1535: Thunderstorm Winds, 52 Knots, \$1,000 property damage. Trees and power lines were blown down in the city of Jackson. Over 3,000 customers lost electric power around the county.	Jackson Jackson County

Potential Hazards

Jackson County Severe/Strong/High Wind Events, 1962-2009		
Date	Description	MCD's
07/05/1995	1610: Thunderstorm Winds, 52 Knots, \$1,000 property damage. In the City of Jackson, large tree damage and damage to mobile homes was reported by a spotter.	Jackson
07/16/1995	1630: Thunderstorm Winds, 52 Knots, \$2,000 property damage. Trees and power lines were blown down in the city of Jackson. Several cars were damaged at a dealership, after one was flipped over by being pulled by the footings of a 20-foot promotional balloon that was caught in the wind and torn from its anchors.	Jackson
08/15/1995	1600: Thunderstorm Winds, 52 knots. 60 MPH wind and tree damage was reported in Grass Lake by amateur radio operators.	Grass Lake
07/23/1996	07:30 PM: Thunderstorm Wind at Jackson, 42°14'N / 84°24'W, 50 knots. Thunderstorm winds knocked down trees in the northern part of the city of Jackson.	Jackson
07/24/1996	11:25 AM: Thunderstorm Wind, Location: 8 Miles North of Jackson, LAT/LON: 42°21'N / 84°24'W, 50 knots. Thunderstorm winds blew trees down onto M-106 north of Jackson.	Rives
07/24/1996	11:40 AM: Thunderstorm Wind/hail in Concord. Thunderstorm winds, combined with half-inch hail, knocked down numerous tree limbs. (also listed in hail)	Concord
07/24/1996	11:55 AM: Thunderstorm Wind at Clark Lake, LAT/LON: 42°08'N / 84°21'W, 50 knots. Thunderstorm winds knocked down tree limbs.	Columbia
08/07/1996	09:00 PM: Thunderstorm Wind at Springport, LAT/LON: 42°23'N / 84°41'W, \$5,000 property damage. Power lines and several large trees were downed by the wind.	Springport
08/20/1996	01:15 PM: Thunderstorm Wind at Springport, LAT/LON: 42°23'N / 84°41'W, \$5,000 property damage. Numerous trees and limbs were blown down.	Springport
09/11/1996	02:25 PM: Thunderstorm Wind, \$3,000 property damage, LAT/LON: 42°15'N / 84°36'W. Several large trees were blocking roads in and around Parma.	Parma
04/06/1997	04:00 PM: High Winds, \$5,000,000 property damage statewide. Sustained wind speeds of 35 to 45 mph, along with frequent wind gusts of 50 to 70 mph, were common through mid-night on April 6. Winds continued to gust to gale force through 5 PM EDT on April 7. Widespread wind damage was reported across the area, but no serious injuries were reported from the storm. The winds downed trees and power lines and resulted in roof damage to area homes and businesses. Between 180,000 and 200,000 Consumers Energy customers lost power across the state on Sunday evening. Nearly 70,000 customers were still without power Monday morning at 5 AM EDT.	Unspecified
07/08/1997	05:55 PM: Thunderstorm Winds, LAT/LON: 42°06'N / 84°33'W, \$5,000 property damage.	Hanover

Jackson County Hazard Mitigation

Jackson County Severe/Strong/High Wind Events, 1962-2009		
Date	Description	MCD's
	Jackson Central Dispatch reported trees uprooted along Fowler Road in Hanover Township. Local fire officials estimated thunderstorm wind gusts up to 50 mph.	
07/14/1997	05:50 PM: Hail 4 Miles South East of Springport, LAT/LON: 42°21'N / 84°38'W, 0.88 inch. Strong to locally severe thunderstorms developed, with isolated reports received of up to nickel-sized hail and winds gusting to 70 mph. Downed trees and power lines cut power to approximately 48,000 Consumers Energy customers in southwest and south central Lower Michigan. No injuries were reported. Also listed under hail	Springport
07/14/1997	05:50 PM: Thunderstorm Wind 4 Miles South East of Springport, LAT/LON: 42°21'N / 84°38'W, 61 Knots, \$10,000 property damage. Jackson County officials reported a 70 mph wind gust and nickel-sized hail 4 miles southeast of Springport in Springport and Parma Townships. Numerous trees and power lines were knocked down in the mostly rural area. Also listed under hail	Springport
07/14/1997	05:59 PM: Thunderstorm Wind, LAT/LON: 42°23'N / 84°28'W, 52 Knots, \$5,000 property damage. Jackson County officials reported a 60 mph wind gust in Rives Junction in Rives Township in north central Jackson County, as well as downed trees.	Rives
08/16/1997	02:45 PM: Thunderstorm Wind, LAT/LON: 42°14'N / 84°24'W, 52 knots. Jackson County Central Dispatch relayed a report of a 60 mph wind gust in the city of Jackson. Thunderstorms produced heavy rainfall amounts of 2 to 5 inches, along with isolated reports of wind damage from 60 mph thunderstorm wind gusts. Local utility companies reported approximately 55,000 power outages during the afternoon and evening across far southern Michigan, with most caused by lightning strikes, but some due to downed trees and utility poles (also listed under lightning).	Jackson
08/16/1997	06:45 AM: Thunderstorm Wind, LAT/LON: 42°06'N / 84°33'W, \$5,000 property damage. Downed trees were reported in Hanover	Hanover
09/19/1997	04:10 PM: Thunderstorm Wind, LAT/LON: 42°15'N / 84°36'W, \$10,000 property damage. Jackson County Central Dispatch reported trees and power lines down in Parma Township, as a line of severe thunderstorms moved across southwest and south central Lower Michigan, producing wind gusts to 70 mph and small hail. Trees and power lines were downed in a line from Allegan County east-southeast through Jackson County. Around 10,000 customers in this swath lost power, nearly half of which occurred in Jackson County. At 04:20 PM: Thunderstorm Wind, LAT/LON: 42°14'N / 84°24'W, \$25,000 property damage. Jackson County Central Dispatch reported trees, power lines, and traffic lights were downed in and	Parma Jackson

Potential Hazards

Jackson County Severe/Strong/High Wind Events, 1962-2009		
Date	Description	MCD's
	around the city of Jackson. A large tree limb fell across a van parked at the corner of N. Wisner and Norfolk Streets. A Consumers Energy spokesman reported that 5,000 customers had lost power across Jackson County because of the severe thunderstorms. Water was also knocked out briefly at the Jackson Water Department, which resulted in customers not having water or having reduced water pressure until backup systems could kick in. At 04:25 PM: Thunderstorm Wind, LAT/LON: 42°15'N / 84°16'W, \$5,000 property damage. Jackson County Central Dispatch reported trees and power lines were downed in Leoni Township. Thunderstorm Wind, LAT/LON: 42°23'N / 84°15'W, \$15,000 property damage. The Jackson County Sheriff's Department reported that trees and power lines were downed in Munith. One tree fell on the roof of a home and another across a vehicle in the area. At 04:30 PM: Thunderstorm Wind, LAT/LON: 42°15'N / 84°13'W, \$5,000 property damage. Jackson County Central Dispatch reported that trees and power lines were down across Grass Lake Township. At 04:35 PM: Thunderstorm Wind at Brooklyn, LAT/LON: 42°06'N / 84°15'W, \$15,000 property damage. A barn under construction on Cement City Highway near Hayes Road was severely damaged.	Leoni Waterloo Grass Lake Brooklyn Cement City
09/29/1997	12:00 PM: High Wind, 42 knots. Southwest, then west winds gusted between 40 and 50 mph through much of Monday afternoon and night. Gusts reached 46 mph at Jackson County Airport Monday evening. The winds caused some trees and power lines to come down, which resulted in 35,000 power outages across the region. Felled trees blocked a few isolated roads across the area for a brief time including Woodbridge and Union Streets in Jackson. No injuries were reported. Damage estimates were not available for the event.	Blackman Jackson
03/28/1998	11:00 AM: Thunderstorm Wind from 5 Miles East of Brooklyn to 5 Miles East South East of Brooklyn, Begin LAT/LON: 42°06'N / 84°09'W, End LAT/LON: 42°06'N / 84°09'W, \$5,000 property damage. Jackson County Central Dispatch reported that trees and power lines were downed in Norvell Township near the intersection of Michigan Highway 124 and Wellwood Road, approximately 5 miles east of Brooklyn. A large branch from a downed tree broke the front window of a home on Wellwood Road. No injuries were reported.	Norvell
05/31/1998	05:19 AM: Hail at Hanover, LAT/LON: 42°06'N / 84°33'W, 1.50 inches. Numerous sources indicated that the widespread and severe damages from a fast-moving line of thunderstorms during the early morning hours of Sunday, May 31st, were caused primarily by strong straight-line winds and isolated wet microburst winds. This derecho event produced widespread 60 to 90 mph wind gusts, which caused extensive tree and structural damage	Hanover

Jackson County Hazard Mitigation

Jackson County Severe/Strong/High Wind Events, 1962-2009		
Date	Description	MCD's
	and left over 861,000 homes and businesses without electricity across Michigan's Lower Peninsula. Consumers Energy reported that the derecho event was the most destructive weather event in the company's history, leaving over 600,000 of its customers without power (Consumers Energy is the largest utility company in western and mid Lower Michigan). There were 4 storm-related fatalities reported in the state and 146 injuries (mostly minor). Statewide, approximately 250 homes were destroyed, 12,250 homes damaged, 34 businesses destroyed, and 829 businesses damaged. (This was subsequently denoted as federally-declared disaster number 1226.) Damage estimates across the above listed counties totaled over \$166 Million. Also listed under hail and thunderstorms.	
06/24/1998	This storm resulted in several wind damage and large hail reports, and an F1 tornado touched down in north central Jackson County near Layton Corners. No injuries were reported with the tornadoes, but damage was estimated at half a million dollars across Henrietta and Waterloo Townships in northern Jackson County. At 5:05 PM: Thunderstorm Wind at Rives Junction, LAT/LON: 42°23'N / 84°27'W, \$5,000 property damage. Jackson County Central Dispatch reported trees and power lines downed in the village of Rives Junction and scattered reports across Rives Township. The Waterloo State Recreation Area reported hundreds of trees uprooted, which resulted in the closing of some roads and horse trails. 5,800 were without power in the affected areas of Henrietta and Waterloo Townships. Damage was estimated at approximately \$500,000. At 05:25 PM: Hail 2 Miles North of Grass Lake, LAT/LON: 42°17'N / 84°13'W, 1.75 inch. Jackson County Emergency Management reported golf ball-sized hail on Morrissey Road in Grass Lake Township, 2 miles north of the city of Grass Lake. Also listed under hail	Henrietta Waterloo Rives
06/26/1998	01:10 AM: Thunderstorm Wind at Jackson, LAT/LON: 42°14'N / 84°24'W, 52 knots. Scattered reports of wind damage and hail were received across west central, southwest, and south central Lower Michigan, as widespread thunderstorm activity moved across Michigan's Lower Peninsula during the late evening hours of Thursday, June 25th, and early morning hours of Friday, June 26th. No injuries were reported, but an estimated 22,000 people lost power across the southern third of Michigan's Lower Peninsula, due to downed trees and power lines. At 01:20 AM: Thunderstorm Wind at Sandstone, LAT/LON: 42°15'N / 84°31'W, 52 knots. Jackson County Emergency Management reported wind gusts to 60 mph in Sandstone Township along with scattered reports of trees and power lines having been felled. At 12:58 AM, Thunderstorm Wind at Parma, LAT/LON: 42°15'N / 84°36'W, 52	Jackson Sandstone

Potential Hazards

Jackson County Severe/Strong/High Wind Events, 1962-2009		
Date	Description	MCD's
	knots. Jackson County Emergency Management reported wind gusts to 60 mph in Parma Township along with scattered reports of trees and power lines having been felled. Also listed under hail	Parma
07/21/1998	04:30 PM: Thunderstorm Wind, LAT/LON: 42°14'N / 84°24'W. Jackson area law enforcement reported numerous trees and power lines downed in Blackman Township and the city of Jackson. The Jackson Citizen Patriot reported that a Jackson woman was trapped when the wind dropped a large branch and live power lines over her car on Sixth Street, just north of W. Morrell. Damage to the car was minor and the woman was not injured. Over 200 power lines were downed by the storm and transformers were damaged by lightning strikes. Approximately 5,000 residents lost power in Jackson County. Damage estimates were not available. Wind gusts of 60 to 80 mph occurred across portions of the county. No injuries were reported, but power outages across southwest and south central Lower Michigan peaked at approximately 110,000. At 06:30 AM, Thunderstorm Wind at Jackson, LAT/LON: 42°14'N / 84°24'W. The Jackson Citizen Patriot newspaper reported tree limbs and power lines down across the County. According to the Patriot, the Jackson County Road Commission reported tree limbs down on Pulaski, Lansing, Sargent, and County Farm Roads, with most of the damage north of the city of Jackson in the northern part of county. Approximately 1,500 homes lost power in the Jackson Area, including a section of N. West Avenue in the city (also listed under lightning).	Blackman Jackson Jackson County
09/07/1998	02:50 AM: Thunderstorm Wind at Napoleon, LAT/LON: 42°10'N / 84°15'W, 60 knots. Large trees were down near Napoleon at 0250 and 0315, and near Brooklyn at 0310.	Napoleon
11/10/1998	10:00 AM: High Wind, 87 Knots, 1 death. Winds exceeded 50 mph across the entire county, with gusts exceeding 60 mph. Over 167,000 Michigan homes were without power, and clean-up efforts were extensive.	Jackson County
12/06/1998	03:10 PM: Thunderstorm Wind at Spring Arbor, LAT/LON: 42°12'N / 84°33'W, \$2,000 property damage. A weather spotter reported 2 large trees down in Spring Arbor.	Spring Arbor
12/06/1998	03:15 PM: Thunderstorm Wind, LAT/LON: 42°14'N / 84°24'W, \$5,000 property damage. The Jackson County Sheriff's Department reported 5 trees down in the city of Jackson.	Jackson
05/17/1999	04:00 PM: Numerous trees and power lines were also brought down in the Napoleon and Clark Lake areas. A large severe weather outbreak featured numerous reports of wind gusts of 60 to 70 miles per hour that downed many trees and power lines. There were also a few reports of hail 0.75" - 1.00" in diameter. Also listed under hail	Parma

Jackson County Hazard Mitigation

Jackson County Severe/Strong/High Wind Events, 1962-2009		
Date	Description	MCD's
07/23/1999	01:38 PM: Thunderstorm Wind, LAT/LON: 42°22'N / 84°32'W, 53 Knots, \$10,000 property damage. Several trees were downed in Tompkins, during numerous rounds of strong to severe thunderstorms. Many of the thunderstorms produced gusty winds of 50 to 60 mph. At 11:10 PM: Thunderstorm Wind at Jackson, LAT/LON: 42°14'N / 84°24'W, \$1,000 property damage. A large tree was downed on Comdon Road.	Tompkins Jackson
07/24/1999	10:28 PM: Thunderstorm Wind, LAT/LON: 42°14'N / 84°24'W, \$10,000 property damage. Trees and a few power lines were down in Jackson. Scattered strong to severe thunderstorms developed during the afternoon and continued through the evening.	Jackson
07/31/1999	01:05 PM: Thunderstorm Winds, Pleasant Lake to Grass Lake, Begin LAT/LON: 42°24'N / 84°20'W, End LAT/LON: 42°15'N / 84°13'W, 53 Knots, \$10,000 property damage. Several large trees were downed near Pleasant Lake and Grass Lake.	Henrietta Grass Lake
09/28/1999	06:28 PM: Thunderstorm Wind, LAT/LON: 42°15'N / 84°26'W, 53 Knots, \$10,000 property damage. Thunderstorm winds knocked down several trees, and one car drove into a tree that had fallen onto a road. The thunderstorm became severe, producing pea-sized hail and wind gusts to 60 mph. also listed under hail	Jackson
05/09/2000	06:50 PM: Thunderstorm Wind at Parma, LAT/LON: 42°15'N / 84°36'W, 53 Knots, \$50,000 property damage. Severe thunderstorms resulted in several trees being blown down in Parma. Severe thunderstorm warnings were issued.	Parma
06/21/2000	12:30 AM: Thunderstorm Wind, LAT/LON: 42°14'N / 84°24'W, 53 Knots, \$10,000 property damage. An isolated severe thunderstorm produced wind gusts estimated near 60 mph, blowing down several trees in Jackson during the early morning hours.	Jackson
07/28/2000	03:04 PM: Thunderstorm Wind, LAT/LON: 42°15'N / 84°36'W, 53 Knots, \$10,000 property damage. A tree was downed at the intersection of Erie and Little roads (1 mile southwest of Parma) at 3:04 p.m. Severe thunderstorm warnings were issued.	Parma
06/19/2001	08:30 PM, Thunderstorm Wind, LAT/LON: 42°10'N / 84°15'W, 53 Knots, \$25,000 property damage. A severe thunderstorm produced numerous reports of wind damage across Jackson county during the evening hours of the 19th. Trees were blown down in Napoleon township, and numerous trees and power lines were also blown down in the city of Jackson. Trees were also blown down in Leoni township. All of the reports of trees blown down came from Jackson county area law enforcement. 08:43 PM, Thunderstorm Wind, Jackson to Leoni, Begin LAT/LON: 42°14'N / 84°24'W, End	Jackson County Napoleon Jackson Leoni

Potential Hazards

Jackson County Severe/Strong/High Wind Events, 1962-2009		
Date	Description	MCD's
	LAT/LON: 42°15'N / 84°16'W, 53 Knots, \$75,000 property damage. A severe thunderstorm produced numerous reports of wind damage across Jackson county during the evening hours of the 19th. Trees were blown down in Napoleon township, and numerous trees and power lines were also blown down in the city of Jackson. Trees were also blown down in Leoni township. All of the reports of trees blown down came from Jackson county area law enforcement.	
07/29/2001	07:10 PM, Thunderstorm Wind, Parma to Spring Arbor, Begin LAT/LON: 42°15'N / 84°36'W, End LAT/LON: 42°12'N / 84°33'W, 53 Knots, 25,000 property damage. A large severe weather outbreak across southern and central lower Michigan during the late afternoon and evening hours resulted in numerous reports of downed trees and power lines, and a few reports of large hail. A 911 center in Spring Arbor (Jackson county) reported trees down in that area. Also recorded as hail	Parma Spring Arbor
08/28/2001	12:28 AM, Thunderstorm Wind, LAT/LON: 42°12'N / 84°33'W, 53 Knots, 20,000 property damage. An isolated severe thunderstorm blew down numerous trees in Spring Arbor. Several trees fell on power lines, causing scattered power outages.	Spring Arbor
09/07/2001	07:05 PM, Thunderstorm Wind, LAT/LON: 42°06'N / 84°24'W, 53 Knots, \$10,000 in property damage. In Liberty, in Jackson county, several trees were also blown down.	Liberty
10/24/2001	06:05 PM, Thunderstorm Wind, LAT/LON: 42°15'N / 84°26'W, 53 Knots, 5,000 property damage. A major severe weather episode occurred across southern lower Michigan, highlighted by three supercell thunderstorms that caused extensive damage. It moved northeast between 50 and 55 m.p.h. across northwest Jackson. The storm blew down several trees and power lines but did not cause extensive damage in Jackson County.	Jackson
03/09/2002	12:54 PM, High Wind, 62 Knots, 485,000 property damage. A very strong area of low pressure produced numerous reports of wind gusts over 60 m.p.h. across southern lower Michigan, with sustained winds of 30 to 40 m.p.h. High wind damage across the area ranged from downed trees and power lines to property damage.	Unspecified
7/22/2002	05:40 PM, Thunderstorm Wind, LAT/LON: 42°07'N / 84°21'W, 53 Knots, 5,000 property damage. Numerous eight to ten inch diameter tree limbs were blown down and several fell down on and blocked roads in the Clark Lake area.	Columbia
7/26/2002	08:24 AM, Thunderstorm Wind, LAT/LON: 42°14'N / 84°24'W, 53 Knots, 20,000 property damage. An isolated severe thunderstorm during the morning in Jackson produced several	Jackson

Jackson County Hazard Mitigation

Jackson County Severe/Strong/High Wind Events, 1962-2009		
Date	Description	MCD's
	high wind gusts, causing several large trees and limbs to be blown down. One large tree was blown down on a home on the west side of Jackson, and another report of a tree blown down onto a home in Jackson was received as well. Another large tree limb was blown down and blocked a road. Storm report for JACKSON County. Wind damage and large trees blown down on a home in the west side of Jackson reported by law enforcement. Large limb knocked down by gusty winds blocking a road reported by law enforcement.	
8/4/2002	04:05 PM, Thunderstorm Wind, LAT/LON: 42°07'N / 84°38'W, 53 Knots, \$2,000 property damage. A tree was blown down in Pulaski by a severe thunderstorm wind gust, as reported by area law enforcement. 04:30 PM, Thunderstorm Wind, LAT/LON: 42°10'N / 84°15'W, 53 Knots, \$2,000 property damage. Spotters two miles west of Napoleon reported that a thunderstorm wind gust blew down one tree.	Pulaski Napoleon
9/10/2002	04:16 PM, Thunderstorm Wind, Parma to Jackson, Begin LAT/LON: 42°15'N / 84°36'W, End LAT/LON: 42°14'N / 84°24'W, 53 Knots, \$20,000 property damage. Several trees were blown down in Parma and also in Jackson by thunderstorm wind gusts, as reported by local law enforcement.	Parma Jackson
10/04/2002	04:25 PM, Thunderstorm Wind, LAT/LON: 42°14'N / 84°24'W, 53 Knots, \$15,000 property damage. Several power lines and trees were blown down in Jackson and also about five miles south of Jackson.	Jackson Liberty
3/28/2003	432 PM, Thunderstorm Wind, Jackson to Brooklyn, Begin LAT/LON: 42°14'N / 84°24'W, End LAT/LON: 42°06'N / 84°15'W, 52 Knots, \$25,000 property damage. Numerous trees were blown down across Jackson county, and two large trees were uprooted two miles west of Brooklyn.	Brooklyn Columbia Jackson
4/20/2003	Storm report: JACKSON County has wind damage and trees and limbs down and some are one foot in diameter. NWS reported a number of trees and road signs downed as it passed through JACKSON County.	Unspecified location
6/28/2003	04:38 PM, Thunderstorm Wind, Pulaski to Jackson, LAT/LON: 42°07'N / 84°38'W, End LAT/LON: 42°14'N / 84°24'W, 53 Knots, \$15,000 property damage. Several trees were blown down in Pulaski, Spring Arbor, and Jackson. 05:05 PM, Thunderstorm Wind, LAT/LON: 42°10'N / 84°15'W, 53 Knots, \$5,000 property damage. Severe thunderstorm	Pulaski Spring Arbor Jackson Napoleon

Potential Hazards

Jackson County Severe/Strong/High Wind Events, 1962-2009		
Date	Description	MCD's
	wind gusts blew down several trees in Napoleon.	
7/4/2003	11:04 AM: Thunderstorm Wind, LAT/LON: 42°14'N / 84°24'W, 53 Knots, \$30,000 property damage, \$10,000 crop damage. Numerous reports of blown down trees and power lines were received from across Jackson county.	Jackson Jackson Co.
7/8/2003	01:00 PM, Thunderstorm Wind, Brooklyn, LAT/LON: 42°06'N / 84°15'W, 53 Knots, \$15,000 property damage. Several trees were blown down and some fell across and blocked roads in Norvell township. 12:30 PM, Thunderstorm Wind, LAT/LON: 42°07'N / 84°38'W, 53 Knots, \$15,000 property damage. Numerous trees were blown down across Pulaski and Concord townships	Brooklyn Norvell Pulaski Concord
7/21/2003	01:50 AM, Thunderstorm Wind, 53 Knots, LAT/LON: 42°14'N / 84°24'W, \$30,000 property damage. Law enforcement in Jackson reported that several trees and power lines were blown down.	Jackson
8/1/2003	01:38 PM, Thunderstorm Wind, 67 Knots, \$20,000 property damage. A 77- m.p.h. wind gust was recorded in the city of Jackson.	Jackson
8/2/2003	Storm report: 77 mph wind gusts in JACKSON County.	Unspecified
11/12/2003- 11/13/2003	High wind warnings issued for JACKSON	Jackson
3/5/2004	High wind warning for JACKSON1121, High wind warning issued for JACKSON - West winds of 40 mph or greater, or gusts of 58 mph or stronger are likely.1530, High wind warning issued for JACKSON. West winds 25-35 mph with gusts to 60 mph.	Jackson
5/9/2004	06:30 PM: Thunderstorm Wind, Spring Arbor to Hanover, Begin LAT/LON: 42°12'N / 84°33'W, End LAT/LON: 42°06'N / 84°33'W, 53 Knots, 20,000 property damage, 5,000 crop damage. One tree was blown down in Spring Arbor, Brooklyn and Hanover.	Spring Arbor Hanover Brooklyn
6/14/2004	01:40 PM, Thunderstorm Wind, Jackson to Brooklyn, Begin LAT/LON: 42°14'N / 84°24'W, End LAT/LON: 42°06'N / 84°15'W, 53 Knots, \$10,000 property damage. The general public reported a couple of trees were blown down one mile east of Brooklyn and two miles south of Jackson.	Jackson Brooklyn
7/6/2004	10:45 PM, Thunderstorm Wind, LAT/LON: 42°11'N / 84°38'W, 53 Knots, \$5,000 property damage. A storm chaser in Jackson County reported that several trees were blown down along M-60 one mile east of Concord.	Concord
10/30/2004	11:00 AM, High Wind, 59 Knots, \$1,200,000 property damage. Law enforcement from all	

Jackson County Hazard Mitigation

Jackson County Severe/Strong/High Wind Events, 1962-2009		
Date	Description	MCD's
	the counties in our area reported scattered downed trees and power lines due to gusty winds. Wind gusts of around 58 to 60 m.p.h. were estimated across our area based on all the reports. The wind knocked out power to about 100,000 people statewide.	Unspecified
5/13/2005	04:25 PM, Thunderstorm Wind, LAT/LON: 42°12'N / 84°33'W, 53 Knots, \$5,000 property damage. A severe thunderstorm produced an estimated wind gust to 60 m.p.h. in Spring Arbor which blew down numerous trees.	Spring Arbor
6/5/2005	06:00 PM, Thunderstorm Wind, Parma to Springport, Begin LAT/LON: 42°15'N / 84°36'W, End LAT/LON: 42°23'N / 84°41'W, 52 Knots, \$10,000 property damage. A large severe weather outbreak occurred across our area resulting in numerous downed tree limbs and power lines, many reports of large hail and many reports of downed power lines. Several trees were blown down across area roads. There were several reports of three quarters to inch diameter hail and estimated wind gusts to 60 m.p.h. also listed as hail	Parma Springport
6/30/2005	07:35 PM, Thunderstorm Wind at Parma, End LAT/LON: 42°15'N / 84°36'W, 52 Knots, \$10,000 property damage	Parma
6/30/2005	09:20 AM, Thunderstorm Wind, Parma to Jackson, Begin LAT/LON: 42°15'N / 84°36'W, End LAT/LON: 42°14'N / 84°24'W, 52 Knots, \$10,000 property damage. Twelve trees were blown down in and near Parma.	Parma Jackson
7/4/2005	05:15 PM, Thunderstorm Wind at Brooklyn, LAT/LON: 42°06'N / 84°15'W, 53 Knots, \$10,000 property damage. Three trees greater than one foot in diameter were uprooted in Brooklyn.	Brooklyn
7/25/2005	10:04 PM, Thunderstorm Wind, 53 Knots, LAT/LON: 42°06'N / 84°33'W, \$25,000 property damage. A large severe weather outbreak occurred and produced numerous reports of wind damage, one tornado and one isolated hail report. As a result of severe thunderstorm wind gusts, there were numerous reports of wind damage including downed trees, limbs, and power lines across the area. Also listed as hail	Hanover
5/30/2006	02:08 PM: Thunderstorm Wind, LAT/LON: 42°07'N / 84°38'W, 52 Knots, \$10,000 property damage, \$5,000 crop damage. The public reported numerous trees blown down one mile north of Pulaski in Jackson County.	Pulaski
06/21/2006	04:10 PM, Thunderstorm Wind, LAT/LON: 42°11'N / 84°38'W, 52 Knots, \$10,000 property damage. Law enforcement in Jackson reported several trees were blown down one mile south of Concord.	Concord

Potential Hazards

Jackson County Severe/Strong/High Wind Events, 1962-2009		
Date	Description	MCD's
06/21/2006	05:30 PM, Thunderstorm Wind, Pulaski to Hanover, Begin LAT/LON: 42°07'N / 84°38'W, End LAT/LON: 42°06'N / 84°33'W, 52 Knots, \$20,000 property damage. Several trees were blown down in Pulaski and near Hanover.	Pulaski Hanover
06/21/2006	08:54 PM, Thunderstorm Wind, LAT/LON: 42°15'N / 84°36'W, 52 Knots, \$15,000 property damage. Several trees were blown down two miles east of Parma.	Parma
07/17/2006	10:00 PM: Thunderstorm Wind, LAT/LON: 42°14'N / 84°24'W, 53 Knots, \$25,000 property damage, \$5,000 crop damage. Numerous trees were blown down across the city of Jackson.	Jackson
5/15/2007	17:18 PM, Thunderstorm Wind 1 Mile North East of Pleasant Lake, LAT/LON: 42°24'N/84°19'W, 50 Knots, \$10,000 property damage. EVENT NARRATIVE: A combination of six trees and large limbs were blown down on a golf course one mile northeast of Pleasant Lake in Jackson county. EPISODE NARRATIVE: Severe storms produced several reports of large hail and high winds which brought down several trees and branches in Jackson County. Also listed under hail	Henrietta
6/02/2007	18:15 PM, Thunderstorm Wind 3 Miles West North West of Pleasant Lake, LAT/LON: 42°25'N/84°23'W, 52 Knots, \$20,000 property damage. EVENT NARRATIVE: Multiple trees and power lines were blown down along the Jackson County line. EPISODE NARRATIVE: Severe storms affected much of southwestern lower Michigan, resulting in several reports of large and numerous reports of wind damage. Also listed under hail JACKSON, at 1915, a thunderstorm wind gust of 60 mph was reported 3 miles southeast of Leslie, with multiple trees and limbs down along the Ingham/Jackson county line.	Henrietta
06/07/2007	11:10 AM, Strong Wind, 43 Knots, \$15,000 property damage. EVENT NARRATIVE: Non convective thunderstorm wind gusts brought down several trees and power lines. EPISODE NARRATIVE: High Winds not related to thunderstorms brought down several trees and power lines and also caused damage to some area buildings.	Unspecified

Jackson County Hazard Mitigation

Jackson County Severe/Strong/High Wind Events, 1962-2009		
Date	Description	MCD's
08/7/2007	Severe Thunderstorm Warnings issued for JACKSON JACKSON, at 1919, thunderstorm wind damage was reported by county dispatch, with mature healthy large tree branches blown down near Pulaski and Howard. 18:19 PM, Thunderstorm Wind 1 Mile West of Pulaski, LAT/LON: 42°07'N / 84°38'W, 50 Knots, \$5,000 property damage. EVENT NARRATIVE: County dispatch reported that mature healthy large tree branches were blown down near the intersection of Pulaski and Howard. EPISODE NARRATIVE: An isolated severe thunderstorms brought down large tree limbs and branches in Jackson county.	Pulaski
8/23/2007	18:25 PM, Thunderstorm Wind 1 Mile North of Jackson, LAT/LON: 42°14'N / 84°24'W, 50 Knots, \$100,000 property damage. EVENT NARRATIVE: Numerous trees were blown down throughout the county. EPISODE NARRATIVE: A large severe weather event unfolded on August 23rd and resulted in numerous reports of wind damage.	Blackman
8/29/2007	16:28 PM, Thunderstorm Wind 1 Mile West of Springport to 2 Miles North, North West of Woodlawn Orchards, Begin LAT/LON: 42°22'N / 84°42'W, End LAT/LON: 42°16'N / 84°21'W, 50 Knots, \$15,000 property damage. EVENT NARRATIVE: Several trees were blown down in Springport. A couple of trees were also blown down near Jackson. EPISODE NARRATIVE: Severe thunderstorms produced widespread wind damage with numerous reports of downed trees and power lines across far southern lower Michigan. 16:48 PM, Thunderstorm Wind 1 Mile West of Springport, LAT/LON: 42°22'N / 84°42'W, 50 Knots, \$3,000 property damage. EVENT NARRATIVE: Two trees were blown down in Springport. EPISODE NARRATIVE: Severe thunderstorms produced widespread wind damage with numerous reports of downed trees and power lines across far southern lower Michigan.	Springport Jackson

Potential Hazards

Jackson County Severe/Strong/High Wind Events, 1962-2009		
Date	Description	MCD's
10/18/2007	21:04 PM, Thunderstorm Wind 1 Mile East of Springport, LAT/LON: 42°22'N / 84°39'W, 52 Knots, \$5,000 property damage. EVENT NARRATIVE: A few trees were blown down by wind gusts estimated at 60 mph. EPISODE NARRATIVE: A late season severe weather outbreak occurred on October 18th.	Springport
	23:02 PM, Thunderstorm Wind 2 Miles East of Rives Junction, LAT/LON: 42°22'N / 84°25'W, 52 Knots, 5,000 property damage. EVENT NARRATIVE: Several trees were blown down by wind gusts estimated at 60 mph. EPISODE NARRATIVE: A late season severe weather outbreak occurred on October 18th.	Rives
	23:08 PM, Thunderstorm Wind 1 Mile North West of Tompkins Center, LAT/LON: 42°22'N / 84°32'W, 52 Knots, \$5,000 property damage. EVENT NARRATIVE: Several trees were blown down by wind gusts estimated at 60 mph. EPISODE NARRATIVE: A late season severe weather outbreak occurred on October 18th.	Tompkins
12/23/2007	06:30 AM, Thunderstorm Wind 1 Mile North of Jackson, LAT/LON: 42°14'N / 84°24'W, 52 knots. EVENT NARRATIVE: A trained spotter reported a 52 knot wind gust in Jackson. EPISODE NARRATIVE: A narrow line of rain with embedded thunderstorms just ahead of an arctic cold front produced high wind gusts ranging from 50 to 78 mph. This resulted in widespread power outages and reports of wind damage across central and southern lower Michigan.	Blackman
		Jackson
1/7/2008	21:54 PM, Thunderstorm Wind 2 Miles North, North East of Horton, LAT/LON: 42°10'N / 84°30'W, 52 Knots, \$2,000 property damage. EVENT NARRATIVE: One tree was blown down near the intersection of Reynolds and Horton roads three miles southeast of Spring Arbor. EPISODE NARRATIVE: A rare mid winter severe weather event occurred and resulted in several reports of high winds and large hail. There were few reports of damage associated with the severe weather. A tree was blown down just southeast of Spring Arbor. Also listed under hail	Hanover Spring Arbor
6/6/2008	17:45 PM, Thunderstorm Wind 1 Mile North West of Spring Arbor, LAT/LON: 42°12'N / 84°33'W, 52 knots. EVENT NARRATIVE: Law enforcement reported that a couple of trees were blown down. EPISODE NARRATIVE: Severe thunderstorm wind gusts resulted in several reports of significant wind damage. Several reports of large hail were also received. Also listed under hail	Spring Arbor
6/8/2008	15:34 PM, Thunderstorm Wind 1 Mile West of Pleasant Lake, LAT/LON: 42°24'N / 84°21'W, 70 knots. EVENT NARRATIVE: A trained spotter reported an estimated wind gust to 80	Henrietta Rives

Jackson County Hazard Mitigation

Jackson County Severe/Strong/High Wind Events, 1962-2009		
Date	Description	MCD's
	<p>mph between Rives and Pleasant Lake.</p> <p>15:40 PM, Thunderstorm Wind 1 Mile South of Leoni, LAT/LON: 42°14'N / 84°16'W, 52 knots. EVENT NARRATIVE: The public reported that trees were blown down and that a tree and some debris were lifted up into the air.</p> <p>15:48 PM, Thunderstorm Wind, LAT/LON: 42°10'N / 84°15'W, 52 knots. EVENT NARRATIVE: Several trees were blown down around Napoleon.</p>	<p>Leoni</p> <p>Napoleon</p>
6/26/2008	<p>14:39 PM, Thunderstorm Wind 5 Miles North West of Concord, LAT/LON: 42°13'N / 84°42'W, 52 knots. EVENT NARRATIVE: One tree was blown down. EPISODE NARRATIVE: A round of severe thunderstorms resulted in several reports of strong to severe thunderstorm wind gusts which downed several trees.</p> <p>14:39 PM, Thunderstorm Wind 4 Miles South, South East of Devereaux, LAT/LON: 42°16'N / 84°40'W, 52 knots.</p> <p>14:39 PM, Thunderstorm Wind 1 Mile South West of South Jackson, LAT/LON: 42°09'N / 84°24'W, 52 knots.</p> <p>14:40 PM, Thunderstorm Wind 1 Mile North West of Minard, LAT/LON: 42°20'N / 84°33'W, 52 knots.</p> <p>14:40 PM, Thunderstorm Wind 2 Miles South West of South Jackson, LAT/LON: 42°09'N / 84°25'W, 52 knots.</p> <p>14:46 PM, Thunderstorm Wind 2 Miles South East of Tompkins Center, LAT/LON: 42°21'N / 84°30'W, 52 knots.</p> <p>14:48 PM, Thunderstorm Wind 1 Mile North of Parma, LAT/LON: 42°15'N / 84°36'W, 52 knots.</p> <p>18:04 PM, Thunderstorm Wind 1 Mile North of Brooklyn, LAT/LON: 42°06'N / 84°15'W, 52 knots. EVENT NARRATIVE: A trained spotter in Brooklyn reported that the entire village was without power due to blown down power lines.</p>	<p>Concord</p> <p>Parma</p> <p>Spring Arbor</p> <p>Spring Arbor</p> <p>Tompkins</p> <p>Columbia</p>
7/16/2008	<p>20:53 PM, Thunderstorm Wind 1 Mile North West of Rives Junction, LAT/LON: 42°23'N / 84°27'W, 52 knots. EVENT NARRATIVE: Law enforcement in Jackson county reported that a couple of trees were blown down. One was blown down on Spring Court and another was blown down near Zion Road and East Berry Road. EPISODE NARRATIVE: Numerous severe thunderstorms across southwest Michigan resulted in wind damage and large hail.</p> <p>Also listed under hail</p>	Rives
12/28/2008	04:00 AM, High Wind, 52 knots. EVENT NARRATIVE: Wind gusts up to 60 mph brought	Unspecified

Potential Hazards

Jackson County Severe/Strong/High Wind Events, 1962-2009		
Date	Description	MCD's
	down several trees and power lines. EPISODE NARRATIVE: A strong low pressure system produced very windy conditions across southwestern lower Michigan on December the 28th. The highest wind gusts occurred mainly before sunrise, however very gusty conditions persisted well into the afternoon. Hundreds of thousands of people across the state lost power at least temporarily due to high winds.	
4/25/2009	12:04 PM, Thunderstorm Wind, 53 knots. EVENT NARRATIVE: A wind gust of 61 mph was measured by the ASOS at the Jackson County Airport. An NWS storm survey team did not find any damage beyond a few small branches down in areas adjacent to the airport or in the city of Jackson itself. Severe storms developed ahead of a cold front that swept across Michigan during the afternoon and evening hours.	Blackman
	16:30 PM, Thunderstorm Wind 1 Mile West of Munith, LAT/LON: 42°22'N / 84°16'W, 50 knots. EVENT NARRATIVE: Roughly a 1 by 2 mile area of widely scattered tree damage was observed about two miles west-northwest of Tompkins.	Waterloo Tompkins
	16:30 PM, Thunderstorm Wind 1 Mile North West of Parma to 3 Miles South, South West of Munith, LAT/LON: 42°15'N / 84°36'W, End LAT/LON: 42°20'N / 84°16'W, 50 knots. EVENT NARRATIVE: Widely scattered tree damage was observed from about one mile west of Parma to 18 miles east-northeast of Parma. The swath was 2 to 3 miles wide. Other than tree damage a highway billboard was blown down on Interstate-94 just outside of Parma. Several eyewitnesses were interviewed to confirm that damage was from second storm.	Parma
	16:40 PM, Thunderstorm Wind 1 Mile East South East of Pleasant Lake to End Location: 7 Miles North of Waterloo, Begin LAT/LON: 42°24'N / 84°18'W, End LAT/LON: 42°27'N / 84°08'W, 53 knots. EVENT NARRATIVE: Scattered to widely scattered tree damage occurred including occasional uprooted trees along a 9 mile stretch from 2 miles west-southwest of Pleasant Lake to 2.5 miles southwest of Stockbridge. The damage swath was 4 to 6 miles wide. A measured 53 knot gust with pea sized hail occurred just north of Batteese Lake. The damage crossed into extreme southeast Ingham County at 42.4284 north latitude and 84.2094 west longitude. The damage continued east-northeast to at least the Livingston County line. Also listed under hail	Henrietta
8/9/2009	19:09 PM, Thunderstorm Wind, 5 Miles North, North West of Jackson Airport to 5 Miles North East of Jackson Airport, Begin LAT/LON: 42°20'N / 84°30'W, End LAT/LON: 42°19'N / 84°24'W, 55 knots. EVENT NARRATIVE: A roof section was partially peeled off of Kidder Middle School. Approximately three dozen trees were blown down. EPISODE NARRATIVE:	Blackman
		Henrietta

Jackson County Hazard Mitigation

Jackson County Severe/Strong/High Wind Events, 1962-2009		
Date	Description	MCD's
	Severe thunderstorms developed across west central lower Michigan ahead of a cold front during the late afternoon hours of August 9th. An area of thunderstorms developed south and east of Grand Rapids and produced wind damage in eastern Ingham county along Interstate-96 near Webberville and in central Jackson county. A severe storm just northwest of Jackson a few miles from the Interstate 94 and U.S. - 127 interchange produced 70 mph wind gusts that peeled part of the roof off of Kidder Middle School as well as damaging as many as 100 trees. The storm produced damaging wind gusts over a 5 mile long and up to 1.75 mile wide path.	Jackson

Michigan Hazard Analysis, the National Climatic Data Center (NCDC) storm events database, reports from the Law Enforcement Information Network (LEIN), and local input from plan participants.

Tornadoes

Tornadoes in Michigan are most frequent in the spring and early summer when warm, moist air from the Gulf of Mexico collides with cold air from the Polar Regions to generate severe thunderstorms. These thunderstorms often produce the violently rotating columns of wind that are called tornadoes. Most of a tornado's destructive force is exerted by the powerful winds that knock down walls and lift roofs from buildings in the storm's path. The violently rotating winds then carry debris aloft that can be blown through the air as dangerous missiles.

Jackson County Perspective

National Weather Service data indicates that there were 15 tornadoes resulting in 1 death in Jackson County between 1950 and July 2001. All of the tornado events occurring in Jackson County occurred during the months of March through August. The intensity of the tornadoes ranged from F0 - F3, with 27% at F0, 33% at F1, 33% at F2, and 7% at F3. F3 tornadoes are classified as "severe" with wind speeds of 18 to 206 mph resulting in severe damage. An F3 tornado can result in roofs and some walls torn off well constructed houses; trains overturned; and forests uprooted.

Severe winds are an annually expected occurrence in Jackson County because the county has an average of between 40 and 60 thunderstorm days per year, any of which may include strong wind gusts. Gusting

Potential Hazards

winds may also occur outside of storm events, or during winter storms, but the county expects several severe thunderstorm events to occur each year that are characterized by strong wind activity which can be expected to cause property or infrastructure damage and even some injuries.

Although less frequent than other sources of severe winds, a tornado touchdown tends to take place in the county at least once every 3 years, on average. This estimate is based on the history of touchdowns in the county over more than a half-century, with the probability of damage apparently greater now than it was 50 or 60 years ago, due to more extensive rural development and suburbanization patterns throughout the county. The following table provides a history of tornadoes in Jackson County from 1954-2009.

Jackson County Tornado Events, 1954-2009		
Date	Description	MCD's
06/19/1954	1600: Tornado, LAT/LON: 42°12'N / 84°21'W, F0, \$3,000 property damage.	Napoleon
08/06/1955	1700: Tornado, Begin LAT/LON: 42°06'N / 84°20'W, End LAT/LON: 42°09'N / 84°11'W, Length: 7.90 Miles, Width: 300 Yards, F2, \$3,000 property damage.	Begin: Columbia, End: Norvell
06/15/1960	1730: Tornado, Begin LAT/LON: 42°15'N / 84°20'W, End LAT/LON: 42°15'N / 84°13'W, Length: 5.60 Miles, Width: 33 Yards, Magnitude: F2, \$25,000 property damage.	Begin: Leoni, End: Grass Lake
07/04/1969	2310: Tornado, LAT/LON: 42°18'N / 84°20'W, Length: 0.30 Mile, Width: 27 Yards, Magnitude: F1, Injuries: 11, Property Damage: \$25,000.	Leoni
05/30/1972	1025: Tornado, LAT/LON: 42°15'N / 84°16'W, Length: 1.10 Miles, Width: 17 Yards, Magnitude: F1, \$2,500 property damage.	Grass Lake
04/03/1974	1900: Tornado, Begin LAT/LON: 42°05'N / 84°24'W, End LAT/LON: 42°07'N / 84°22'W, Length: 1.30 Miles, Width: 440 Yards, Magnitude: F2, Property Damage: \$25,000.	Columbia
03/12/1976	1645: Tornado, LAT/LON: 42°04'N / 84°30'W, End LAT/LON: 42°05'N / 84°28'W, Magnitude: F2, Property Damage: \$250,000.	Begin: Hanover, End: Liberty
03/12/1976	1650: Tornado, LAT/LON: 42°11'N / 84°15'W, Length: 2.00 Miles, Width: 90 Yards, Magnitude: F2, Property Damage: \$250,000.	Napoleon
05/20/1978	1215: Tornado, LAT/LON: 42°22'N / 84°31'W, Length: 0.70 Mile, Width: 70 Yards, Magnitude: F0, Property Damage: \$300.	Tompkins
07/28/1979	1800: Tornado, LAT/LON: 42°22'N / 84°20'W, Length: 0.20 Mile, Width: 17 Yards, Magni-	Henrietta

Jackson County Hazard Mitigation

Jackson County Tornado Events, 1954-2009		
Date	Description	MCD's
	tude: F0.	
05/30/1980	2125: Tornado, LAT/LON: 42°13'N / 84°36'W, Length: 1.90 Miles, Width: 17 Yards, Magnitude: F0, Property Damage: \$ 2,500.	Spring Arbor
06/15/1982	1457: Tornado, Begin LAT/LON: 42°21'N / 84°22'W, End LAT/LON: 42°24'N / 84°08'W, Length: 10.00 Miles, Width: 500 Yards, Magnitude: F3, Fatalities: 1, Injuries: 1, Property Damage: \$ 2,500,000.	Begin: Henrietta, End: Waterloo
06/02/1990	1930: Tornado, LAT/LON: 42°06'N / 84°33'W, Length: 0.50 Mile, Width: 20 Yards, Magnitude: F1, Property Damage: \$ 25,000.	Hanover
06/14/1991	1555: Tornado, LAT/LON: 42°25'N / 84°22'W, Length: 1.00 Mile, Width: 30 Yards, Magnitude: F1, Injuries: 1, Property Damage: \$25,000.	Henrietta
06/24/1998	05:04 PM: Funnel Cloud 6 Miles North of Jackson. Jackson County Emergency Management reported a funnel cloud near the intersection of Lansing Ave. and Maple Grove Road in southern Rives Township, approximately 6 miles north of the city of Jackson. Scattered severe thunderstorms were characterized by several large hail reports, including golf-ball sized hail reports received from Jackson County and hail of 2 to 3 inches in diameter associated with a supercell thunderstorm as it tracked east-southeast across southern Ingham and northern Jackson County. This supercell thunderstorm developed over eastern Barry County and tracked across Eaton County, southwest Ingham County, and northern Jackson County. This storm resulted in several wind damage and large hail reports, and an F1 tornado touched down in north central Jackson County near Layton Corners. No injuries were reported with the tornadoes, but damage was estimated at half a million dollars across Henrietta and Waterloo Townships in northern Jackson County. At 5:05 PM: Thunderstorm Wind at Rives Junction, LAT/LON: 42°23'N / 84°27'W, \$5,000 property damage. Jackson County Central Dispatch reported trees and power lines downed in the village of Rives Junction and scattered reports across Rives Township. At 05:06 PM: Tornado from 3 Miles East of Rives Junction to Waterloo, Begin LAT/LON: 42°23'N / 84°23'W, End LAT/LON: 42°21'N / 84°08'W, Length: 11.30 Miles, Width: 50 Yards, Magnitude: F1, \$500,000 property damage. The Jackson County Emergency Management Coordinator confirmed that a weak tornado had touched down just west of Layton Corners, in rural eastern Rives Township, and traveled east-southeast to near Waterloo, along the Washtenaw County line. The tornado was not on the ground for the entire 11.3 mile path, but due to the heavily wooded rural areas it traversed, exact path lengths could not be determined. Path width was narrow,	Rives Henrietta Waterloo

Potential Hazards

Jackson County Tornado Events, 1954-2009		
Date	Description	MCD's
	estimated to be 50 yards at most. No injuries or deaths were associated with this F1 tornado. Damage consisted of downed trees and power lines, roof damage to approximately 12 homes, minor structural damage (broken windows, damaged siding, damaged vehicles and aluminum campers—mainly caused by large hail), fallen trees, and overturned boats on Pleasant Lake in Henrietta Township. Hail was estimated to have reached 2 to 3 inches in diameter in association with this tornadic storm. The most significant damage was reported around the Pleasant Lake area, where several boats were overturned and several homes reported minor to moderate structural damage. Along North Meridian Road from near Layton Corners along the west end of Pleasant Lake, 2 homes reported destroyed garages. Pleasant Lake County Park was closed due to downed trees. The Waterloo State Recreation Area reported hundreds of trees uprooted, which resulted in the closing of some roads and horse trails. 5,800 were without power in the affected areas of Henrietta and Waterloo Townships. Damage was estimated at approximately \$500,000. At 05:25 PM: Hail 2 Miles North of Grass Lake, LAT/LON: 42°17'N / 84°13'W, 1.75 inch. Jackson County Emergency Management reported golf ball-sized hail on Morrissey Road in Grass Lake Township, 2 miles north of the city of Grass Lake. Also listed under hail	
3/31/2006	06:05 PM, Tornado near Leoni, LAT/LON: 42°15'N / 84°16'W, Length: 7.00 Miles, Width: 65 Yards, Magnitude: F1, \$200,000 property damage, \$50,000 crop damage. The tornado began near Napoleon Road just north of Center Lake and moved northeast. Two small barns collapsed and a patio addition was blown away near the intersection of Page and Noon roads. Minor roof damage occurred at a house on Michigan avenue and a dozen large spruce trees were uprooted. The total damage path was 7 miles long and 200 feet wide and this F1 tornado was on the ground for approximately ten minutes. No injuries or fatalities occurred.	Leoni
10/18/2007 10/19/2007	Tornado warnings issued for JACKSON.	Unspecified

Sources: Michigan Hazard Analysis, the National Climatic Data Center (NCDC) storm events database, reports from the Law Enforcement Information Network (LEIN), and local input from plan participants.

Jackson County Hazard Mitigation

24. Snowstorms

Blizzards are the most dramatic and perilous of all snowstorms, characterized by low temperatures and strong winds (35+ miles per hour) bearing enormous amounts of snow. Most of the snow accompanies a blizzard in the form of fine, powdery particles that are wind-blown in such great quantities that, at times, visibility is reduced to only a few feet. Blizzards have the potential to result in property damage and loss of life. Just the cost of clearing the snow can be enormous, and such storms may result in loss and disruption of essential services in affected communities.”

Several recent significant snowstorms of statewide significance, as reported in the Michigan Hazard Analysis, are worth mentioning:

-12/11-31/2000 Snowstorm affecting 39 counties in central and southern Lower Michigan. A series of snowstorms caused a host of public health and safety concerns and problems across the region including Jackson County for the next several weeks. A Presidential Emergency Declaration was granted.

-1/2-3/1999 Snowstorm affecting 31 counties in Southern Lower Michigan. A severe winter storm moved across the western and southern portions of Michigan including Jackson County. Subsequent storms followed. Combined, these winter storms produced the worst winter conditions to hit Michigan since the statewide blizzard that occurred in January, 1978. Various winter weather related traffic accidents during December and January can be indirectly related to this snowstorm.

Jackson County Perspective

A total of 52 snowstorm and winter storm events were reported in Jackson County from 1993 and 2009. This total yields an average annual snowstorm rate of 3.1. The snowstorms that have affected Jackson County have resulted in a total of \$5.13 million in damages statewide of which at least \$100,000 can be attributed directly to Jackson County. Two traffic fatalities occurred in Jackson County due to hazardous driving conditions as a result of snow storms.

Potential Hazards

The following table presents the history of snow storms in Jackson County from 1993-2009. Data regarding specific locations are generally lacking in the table. The effects of large snow storms are usually widespread and county-wide.

Jackson County Snow Storms, 1993-2009		
Date	Description	MCD's
01/12/1993	1200: Heavy Snow. Snowfall totals were probably about six inches, with winds gusting up to 30 mph at times, causing considerable drifting snow.	Unspecified location
01/23/1993	0400: Heavy Snow.	Unspecified location
04/11/1993	0700: Heavy Snow.	Unspecified location
04/15/1993	0700: Heavy Snow	Unspecified location
01/27/1994	0000: Heavy Snow/Freezing Rain. \$5,000,000 property damage statewide. Over the southern third of Lower Michigan, snow mixed with, then changed to, sleet and freezing rain. By late afternoon on the 27th, most of Lower Michigan had freezing rain or sleet. The freezing rain changed to rain by mid afternoon and continued, heavy at times after 7 pm. Overnight on the 27th and into the morning hours of the 28th, occasional rain continued. During the rest of the 28th, the area of freezing rain changed to snow. The snow, heavy at times, continued until around 2300 EST on the 28th. Light snow continued until mid afternoon on the 29th, but little additional accumulations occurred. During the freezing rain, around a quarter inch of ice had accumulated over the southern third of lower Michigan. This resulted in numerous outages. Detroit Edison reported 50,000 people affected by power outages. Consumers Power County reported 2,000 customers without power. Most of the power loss problems were over the southeastern part of Michigan even though this was not the area of heaviest Unspecified location ice accumulation or of the strongest winds. Most of the power loss occurred on Thursday, January 27th, during the ice accumulation phase of the storm. More than 150 schools canceled classes across the state. Across Michigan, there were numerous reports of cars skidding off the road and minor fender-bender type accidents. Also listed as ice storm.	Unspecified location
02/25/1994	1100: Heavy Snow. An intense snow burst caused five to eight inches of snow to fall across most of the southern third of lower Michigan. The heaviest snowfalls, seven to eight inches, fell over a 50-mile wide area across southern lower Michigan, with Jackson on the southern edge of the heaviest snowfall area. Snowfall rates of one to two inches an hour, for a period to two to three hours, were common. Northeast to east winds at 15 to 25 mph with frequent gusts to 35 mph	Unspecified location

Jackson County Hazard Mitigation

Jackson County Snow Storms, 1993-2009		
Date	Description	MCD's
	combined with temperatures around 20F resulted in wind chill values of 10 to 20 degrees below zero. The combination of strong winds and heavy snow caused near blizzard conditions for a period of about six hours. Considerable blowing and drifting of the falling snow resulted in near zero visibility and numerous multi-vehicle accidents on Interstate 94. As a result some sections of highway were closed for hours during the storm.	
12/06/1994	1800: Heavy Snow. Heavy snow fell from the evening on the 6th through the morning of the 7th. Snow amounts of 2 to 4 inches occurred, and some of the precipitation fell as freezing rain. Numerous traffic accidents were reported across the area, along with scattered power outages.	Unspecified location
01/01/1995	0000: Heavy Snow. Numerous traffic accidents were reported across the state.	Unspecified location
01/20/1995	0000: Heavy Snow. Accumulations ranged from 6 to 12 inches. Travel disruptions were not as severe as what would normally be expected with such large snow amounts, since much of the snow fell during the weekend, and the snow fell over a several day period. Still, many serious traffic accidents were reported, along with scattered power outages.	Unspecified location
02/03/1995	1800: Heavy Snow. Accumulations of six to eight inches were widespread, accompanied by strong winds and bitterly cold temperatures. Blowing and drifting snow through the 5 th resulted in numerous traffic accidents reported.	Unspecified location
02/11/1995	0000: Heavy Snow. Most areas had from 4 to 10 inches of snow, accompanied by strong winds. The combination of wind and snow created whiteout conditions on many roadways, making travel nearly impossible.	Unspecified location
02/25/1995	1500: Heavy Snow. Accumulations of three to six inches were common. Numerous traffic accidents were reported during the evening of the 25th, when temperatures fell quickly below freezing once the snow began, and caused sudden icing on roadways.	Unspecified location
03/19/1996	08:30 PM: Winter Storm. 4 to 8 inches of snow fell in a band that covered eastern Branch, Hillsdale, Jackson, and southeast Ingham Counties. Winds up to 45 mph caused drifts up to 2 feet, forcing the closing of many roads and schools. Power outages also affected nearly 5,000 customers.	Unspecified location
01/10/1997	02:00 AM: Heavy Snow. A lake-effect snow storm tied up all activities for over 3 days. Some schools closed early on Friday, the 10 th , and numerous shift workers were told not to report for 2nd and 3rd shifts. Heavy snow continued through Saturday and tapered off to flurries on Sunday morning. All areas reported new snowfall of 12 inches or more. Secondary roads across all of Central Lower and Southwest Lower Michigan were blocked from Friday night into Saturday, and	Unspecified location

Potential Hazards

Jackson County Snow Storms, 1993-2009		
Date	Description	MCD's
	interstates were also closed for a few hours late Friday into Saturday. Accidents occurred at the rate of 50 to 100 per day from the 10th through the 12th. Some secondary roads remained plugged on Sunday but were open by Monday morning.	
11/11/1997	09:00 PM: Lake Effect Snow. A lake-enhanced snow event began in the late evening on Tuesday, November 11th. In general, 1 to 5 inches of snow fell across western and southern Lower Michigan. The snow-covered and icy roads caught many overnight and early morning motorists by surprise. The snow initially melted on road surfaces overnight, then froze early Wednesday morning as temperatures fell below freezing. This resulted in extremely icy conditions and an unusually high number of minor accidents, which included many slide-offs into ditches.	Unspecified location
11/15/1997	07:00 AM: Snow. Snow accumulations of 3 to 4 inches occurred across Jackson during a 14 hour period.	Unspecified location
12/10/1997	01:00 AM: Winter Storm. Snow first moved in shortly after midnight on Wednesday, December 10 th and ended during the early afternoon hours. The heaviest snow fell between 6 and 10 am, when snowfall rates of 1 to 2 inches per hour were common. Snow accumulations totaled 10 to 12 inches in Jackson County. With the heaviest snow falling during the morning rush hour, numerous accidents were reported. A fatal accident claimed the life of a Spring Arbor man who was killed instantly when his automobile was struck by oncoming traffic, after he lost control when trying to pass a county snow plow on southbound U.S. Highway 127 around 3 pm in Jackson County. Several other injury and property damage accidents were reported throughout the storm. Many area schools along and north of Interstate 94 started classes for the day because snow had not yet started falling at the decision-making time of 4-5:30 am, even though Winter Storm Warnings had been posted the night before. However, snow became heavy at the onset, catching many school bus drivers off-guard. Many schools which had opened for the day sent students home early. The weight of the wet snow caused power outages, with up to 18,000 customers without power at the height of the storm due to arcing wires and downed branches. Flight delays and cancellations were common at airports across southern Michigan and local bus service was suspended for several hours of the day in Jackson.	Unspecified location
01/22/1998	07:00 PM: Winter Storm. A winter storm spread a large swath of moderate to occasionally heavy snow across most of western, central, and southern portions of Michigan's Lower Peninsula from Thursday evening through mid-morning Friday, January 22nd-23rd. Snow accumulations ranged from 3 to 6.5 inches, with 6-inch or greater amounts concentrated in Jackson County. Most major highways and roads became snow-covered during the storm and travel conditions were hazard-	Unspecified location

Jackson County Hazard Mitigation

Jackson County Snow Storms, 1993-2009		
Date	Description	MCD's
	ous from late Thursday evening through the Friday morning rush hour. Numerous weather-related minor accidents were reported across the region. Many local school districts were closed because of road conditions on Friday, January 23rd. Snowfall reports included 5.5 inches in Jackson.	
03/09/1998	07:00 AM: Winter Storm, \$100,000 property damage. Heavy snow and blizzard conditions occurred, as rain changed to freezing rain and sleet in the Jackson area and surrounding communities. This icy mix changed to snow during the mid to late morning hours, but a prolonged period of sleet across Jackson County cut down on the snowfall total in the area. Snowfall was heavy and was reported at rates around and slightly over 1 inch per hour. Occasional white-outs were reported. Snowfall totals of 2 to 5 inches were reported. Schools and businesses were closed by this winter storm, the most intense of the 1997-98 winter season. Saturated ground in Jackson from heavy rainfall Sunday night and early Monday morning weakened an old oak tree, which was blown over by winds gusting to 30 mph just before daybreak. This tree crashed through a home in the city of Jackson and caused an estimated \$100,000 in damage. No injuries were reported from residents inside the home. Also listed as snow.	Unspecified location City of Jackson
03/20/1998	04:00 PM: Winter Storm. A mixture of snow, sleet, and freezing rain fell across much of southwest and south central Lower Michigan. The precipitation started out as a mixture of sleet and freezing rain Friday afternoon, then turned to mostly snow Friday evening. The ice at the onset made travel conditions hazardous for the Friday afternoon rush hour, and several minor weather-related accidents were reported along and south of the Interstate-94 corridor. Snow accumulations ranged from 3 to 4 inches in Jackson County. Also included as snow.	Unspecified location
12/21/1998	01:00 PM: Lake Effect Snow. Snowfall totals ranged from 1 inch to several inches, but as is typically the case, the first snow of the season contributed to a dramatic increase in the reported number of traffic accidents. Most of the accidents were minor.	Unspecified location
01/02/1999	07:00 AM: Blizzard. Wind gusts of 45 to 60 mph were common across all of southern lower Michigan through the afternoon hours, causing blowing and drifting snow and whiteout conditions at times. By the late evening hours of the 2nd, 6 to 12 inches of snow had already fallen across all of southwest and west central lower Michigan.	Unspecified location
01/04/1999	12:00 AM: Snow. Snow showers continued from the previous day throughout a new day, accompanied by continued blowing and drifting of snow. Overall, this winter storm ended up being one of the strongest to affect western lower Michigan in 2 decades, and came to be known as the "Blizzard of '99". All of southern lower Michigan was affected by blizzard conditions at times on Janu-	Unspecified location

Potential Hazards

Jackson County Snow Storms, 1993-2009		
Date	Description	MCD's
	ary 2nd. Snow began in the morning and continued through the afternoon, making travel difficult to impossible. By the evening hours of the 2nd, 6 to 12 inches of snow had already fallen across southwest and west central lower Michigan, with both Van Buren and Kalamazoo counties reporting up to a foot of new snow by 10 pm. The snow continued through the 3rd and 4th, and even lingered into the early morning hours of the 5th before finally tapering to flurries. Travel through the period ranged from difficult to impossible, due to all the blowing and drifting of snow, and occasional whiteout conditions. Some snow drifts measured to 5 to 6 feet in open rural areas. Roads became impassable and many highways and rural roads were closed through the 4th. There were several car accidents through the period. Most schools were closed, some for over a week in rural areas. Most colleges and universities, as well as quite a few area businesses, were closed on the 4th and 5th as well. Final snow storm total snowfalls for the 2nd through the 5 th included 16 inches in the city of Jackson.	City of Jackson
01/11/1999	04:00 AM: Snow. 2 to 4 inches of snow fell across Jackson county.	Unspecified location
03/04/1999	10:00 PM: Snow. 8 inches across Jackson County.	Unspecified location
03/08/1999	10:00 PM: Snow. 5 to 6 inches across Jackson County.	Unspecified location
12/11/2000	06:00 AM: Winter Storm. A significant winter storm affected southern lower Michigan with very heavy snow and strong winds. Anywhere from 6 to as much as 15 inches of snow fell across the area. Strong winds caused blowing and drifting snow. The combination of the heavy snow and winds that gusted to 40 m.p.h. created blizzard conditions at times, causing virtually every school and many businesses to close for a day. In fact many area schools, particularly in outlying and rural areas, were closed for several days and even a week in some instances. Numerous accidents were reported in blowing and drifting snow. Many counties reported upwards of 100 accidents occurring between 7 a.m. on the 11th and 7 a.m. on the 12th.	Unspecified location
12/13/2000	02:00 PM: Heavy Snow. Jackson saw 5-6 inches of snowfall.	Unspecified location
01/30/2002	04:00 AM, Winter Storm. A stationary front set up to the south of lower Michigan, setting the stage for a prolonged overrunning precipitation event for southern lower Michigan on the 30th and 31st. Anywhere from eight to as much as thirteen inches of snow fell across the area, and freezing rain fell in Jackson County as low pressure moved into lower Michigan. Winter Storm warning for JACKSON, snow up to 7" with a quarter inch of ice. Also listed as freezing rain.	Unspecified location
2/1/2002	School Closings in JACKSON	Unspecified location

Jackson County Hazard Mitigation

Jackson County Snow Storms, 1993-2009		
Date	Description	MCD's
	1149, Winter storm warning was issued for JACKSON	
2/25 to 2/26/2002	Winter storm warnings were issued for JACKSON	Unspecified location
2/25/2002	07:00 PM, Winter Storm. Moderate to heavy snow developed across much of southern lower Michigan on the 25th and continued on the 27th. There were two phases to the snowfall. During the first phase of this event, the heaviest snow fell across Ingham and Jackson counties, where six to eight inches of snow fell during the late evening hours of the 25th into the morning hours of the 26th. The second phase of this event occurred during the late evening hours of the 26th through the 27th as lake effect snow bands set up across west central lower Michigan.	Unspecified location
12/24/2002	09:00 PM, Heavy Snow. A winter storm caused snow to begin to fall along the I-94 corridor of southern lower Michigan at around 9 p.m. on Christmas Eve. It spread north to near I-96 by midnight. The maximum snowfall report of 9 inches was received from Jackson (Jackson County).	Unspecified location
3/4/2003	06:00 PM, Heavy Snow. Low pressure moved from the panhandle of Texas northeast to Nebraska and eventually to near Toledo Ohio, producing heavy snow across central and southern lower Michigan. Most of the area between I-96 and I-94 generally received anywhere from 6 to 7 inches of snow in less than 12 hours. Winter storm warnings were issued for JACKSON	Unspecified location
3/5/2003	Winter storm warning was issued for JACKSON	Unspecified location
4/6/2003	Winter storm warning issued for JACKSON	Unspecified location
4/7/2003	04:00 AM, Heavy Snow. A late season snow event produced an isolated report of heavy snow in Jackson where seven inches of snow fell.	Unspecified location
1/27/2004	07:00 AM, Winter Storm. A low pressure system developed over the gulf coast states and moved northeast to southern Lake Huron, bringing a combination of moderate to heavy snow and strong gusty winds that caused blowing and drifting of snow across the area. The snow developed around sunrise on the 27th across extreme southwest lower Michigan and expanded northeast to cover most of central and southern lower Michigan by 10 a.m. This was the heaviest general snowfall across our area for the 2003-2004 winter season. A general six to ten inch snowfall occurred across the area.	Unspecified location
11/24/2004	12:00 PM, Winter Storm A potent winter storm brought heavy snow and wind across southern and south central lower Michigan on November the 24th on the day before Thanksgiving. Low pressure developed over eastern Texas late on the 23rd and intensified rapidly as it moved northeast to western Ohio on Wednesday evening. Precipitation began as rain along the I-94 corridor but	Unspecified location

Potential Hazards

Jackson County Snow Storms, 1993-2009		
Date	Description	MCD's
	changed to snow by around noon. Snow become moderate to heavy during the early to mid afternoon hours, when snowfall rates of two to three inches an hour were reported at times. Moderate to heavy snow continued into the early evening hours before gradually diminishing overnight. Reports of six to nine inches of snow were received from Kent, Allegan, Calhoun, Jackson, Clinton and Eaton counties.	
12/22/2004	09:00 PM, Heavy Snow. Heavy snow was reported in Jackson County, where up to 7 inches of snow fell in Brooklyn in southern Jackson County. The remainder of Jackson county received an average of 5 to 6 inches of snow.	Unspecified location Brooklyn
1/4/2005	07:00 PM, Heavy Snow. An initial burst of snow occurred during the late evening hours of the 4th into the early morning hours of the 5th. The main low pressure system moved northeast from Texas and brought the most substantial snow during the daytime hours of the 5th. Six to nine inches of snow fell in less than 24 hours across much of the rest of the area.	Unspecified location
1/21/2005	11:00 PM, Heavy Snow. A potent Alberta clipper system in combination with a strong upper air system produced heavy snow across central and southern lower Michigan. 10 to 12 inches of snow was reported across most of the area across central and southern lower Michigan from Interstate 96 south.	Unspecified location
12/8/2005	04:00 PM, Heavy Snow. A synoptic snow event resulted in total snow accumulations of six to eight inches across much of southern lower Michigan.	Unspecified location
2/13/2007	02:00 AM, Heavy Snow. EVENT NARRATIVE: Six inches of snow fell in about a 9 hour period in Jackson County by late in the day on Tuesday February 13th. EPISODE NARRATIVE: A low pressure system moved northeast along a stationary front well south of our region and this produced a band of snow which clipped southern lower Michigan. Six inches of snow fell in about a 9 hour period in Jackson County by late in the day on Tuesday February 13th.	Unspecified location
12/31/2007	22:30 PM, Winter Storm. EVENT NARRATIVE: This heavy snow event continued into the early morning hours on New Year's Day. EPISODE NARRATIVE: Heavy snow moved into southern lower Michigan during the early evening hours of New Year's Eve, impacting New Year's travel plans by creating very hazardous travel conditions in heavy snow and snow covered roads. Many locations across southern Michigan reported total snowfall of 7 to 10 inches, with as much as 11.5 inches reported three miles south southeast of Jackson.	Unspecified location Napoleon Township
2/1/2008	02:00 AM, Winter Storm. EPISODE NARRATIVE: A low pressure system tracked northeast between Toledo and Cleveland and brought significant snowfall to most of southern lower Michigan	Unspecified location

Jackson County Hazard Mitigation

Jackson County Snow Storms, 1993-2009		
Date	Description	MCD's
	on the first of February. The heaviest snow occurred between midnight and daybreak before gradually diminishing during the mid to late morning hours. Snow continued to taper off to flurries in the afternoon before ending. Approximately five to seven inches of snow fell south of a line from Muskegon to Clare.	
3/21/2008	13:20 PM, Winter Storm. EPISODE NARRATIVE: A low pressure system brought heavy snow to much of southwestern lower Michigan from the 21st through the 22nd. Snow began during the morning hours of the 21st and continued into the early morning hours of the 22nd before gradually diminishing. The heaviest snow fell during the afternoon and early evening hours of the 21st, when snowfall rates of two inches per hour were reported at some locations. Eight to fourteen inches of snow fell south of a line from Holland to Jackson.	Unspecified location
12/19/2008	04:00 AM, Winter Storm. EVENT NARRATIVE: A total of eight to twelve inches of snow was reported. EPISODE NARRATIVE: An area of low pressure moved from Kansas City, Missouri to north of Pittsburgh, Pennsylvania. Snow spread into southwest lower Michigan out ahead of the low, starting in South Haven at around 2:00 a.m. on the nineteenth. Heavy Snow occurred across most of the area between 5:00 a.m. and 1:00 pm, with snowfall rates reaching 1 to 2 inches per hour at times. Thundersnow was even reported at locations across southern lower Michigan, evidence to the instability in place with this system. Some sleet and freezing rain mixed in along the Interstate 94 corridor. A maximum of snow was found across south central lower Michigan from Bellevue in Eaton county southeast to Vandercook Lake in Jackson county.	Unspecified location Summit Township
1/9/2009	12:00 PM, Winter Storm. EVENT NARRATIVE: Four to eight inches of snow fell. EPISODE NARRATIVE: Six to twelve inches of snow fell south of the I-96 corridor over south and southwest Michigan on the ninth and tenth. The snow began during the morning of the ninth and continued through the early evening hours. The mainly light snow combined with fog to produce visibilities between one quarter and one half of a mile along the I-94 corridor. Many locations saw a break in the falling snow during the late evening hours of the ninth, before a second period of heavier snow began during the early morning hours of the tenth. Snow fell throughout the day on the tenth before tapering to flurries in the evening.	Unspecified location
4/5/2009	22:30 PM, Winter Storm. EVENT NARRATIVE: Six to seven and a half inches of snow was reported across Jackson county, resulting in downed trees, branches and power lines, 34 property damage accidents and two accidents with injuries. Scattered power outages were also reported. EPISODE NARRATIVE: A spring snowstorm brought 4 to 8 inches of heavy wet snow to the south and southeast part of the county warning area on the evening of April 5th through the morning of	Unspecified location

Potential Hazards

Jackson County Snow Storms, 1993-2009		
Date	Description	MCD's
	April 6th. The snowfall resulted in numerous traffic accidents with at least one known fatality. The wet snow also brought down some trees and numerous tree limbs resulting in sporadic power outages that affected between 25,000 and 50,000 persons during the storm. Rain spread into the region between 5:00 and 8:00 pm and then changed to snow between 10:00 and 11:00 pm. Accumulating snow fell with temperatures near freezing through Monday morning. Temperatures rose just above freezing Monday morning with the snow ending from west to east by midday.	Southeast Jackson County
2/9/2010	05:00 AM, Heavy Snow. A low pressure system formed over the Tennessee Valley region and moved to the north northeast to just east of Toledo Ohio, bringing heavy snow to southern lower Michigan. The snow fell from the morning hours of February 9th through the mid morning hours of February 10th. The snow was heaviest during the late afternoon and evening hours of the 9th. Most of the area south of a line from Muskegon to St. John's had between 6 and 10 inches of snow. The storm coincided with Michigan's winter 'Count Day' used to determine base funding for local public school systems. Many school systems closed due to the snowstorm. Several significant accidents occurred on the regions primary arteries. I-94 was closed for several times due to jackknifed trucks.	Unspecified location
2/21/2010	21:00 PM, Heavy Snow. Four to eight inches of snow fell south of a Muskegon to St. John's line over southwest lower Michigan during the morning hours of Monday, February 22nd. The highest amounts fell over Eaton, Ingham, Calhoun, and Jackson counties. The highest observed snow accumulation rates, between 0.5 and 1.0 inch per hour, occurred during the morning commute on the 22nd.	Unspecified location

Sources: Michigan Hazard Analysis, the National Climatic Data Center (NCDC) storm events database, reports from the Law Enforcement Information Network (LEIN), and local input from plan participants.

Jackson County Hazard Mitigation

25. Ice and Sleet Storms

Ice storms are sometimes incorrectly referred to as sleet storms. Ice storms are the result of cold rain that freezes on contact with the surface, coating the ground, trees, buildings, overhead wires and other exposed objects with ice, sometimes causing extensive damage. When electric lines are downed, households may be without power for several days, resulting in significant economic loss and disruption of essential services in affected communities.

Several recent significant ice and sleet storms of statewide significance are worth mentioning, including the following three significant events:

03/13/1997 Ice Storm affecting the southern third of Michigan. Detroit Edison and Consumers Energy outages affected 514,000 customers, including those in Jackson County. Shelters were also opened in many communities. **01/01/1985 Ice Storm affecting Jackson and 12 other counties in Southern Lower Michigan.** Up to 1 inch of freezing rain downed tree limbs, trees, and power lines, blocked roads, and caused widespread power outages. More than 430 thousand electric customers were without power for up to 10 days. An estimated \$50 million in public and private damages, 3 deaths, and 8 injuries are attributed to this event. A Governor's Disaster Declaration was issued.

03/02-07/1976 Ice Storm with accompanying high winds and tornadoes struck Jackson and 28 other counties in Central Lower Michigan. The storm, considered to be one of the worst to hit the state, caused over \$56 million in damage and widespread power outages. A Presidential Major Disaster was granted.

Jackson County Perspective

A total of 8 winter storm events were reported in Jackson County between 1993 and 2004 to the National Climatic Data Center, which is maintained by the National Oceanic and Atmospheric Administration. No information on winter storms was available on the NCDC database for the 1950-1992 time periods. The most significant event was a heavy snowstorm that mixed with freezing rain causing more than \$5 million in property damage over most of Michigan (including Jackson County) January of 1994. No deaths or injuries were attributed to these winter storm events.

Potential Hazards

A total of 13 ice storm/freezing rain events were reported in Jackson County between 1993 and 2009 as indicated in the following table. Based on these data, the annual probability of an ice or sleet storm in Jackson County is 0.75. These storms resulted in property damage estimated at \$5,100,000 million statewide including \$100,000 directly attributable to Jackson County. It is very likely that additional property damage occurred in Jackson County but additional amounts are included in statewide data. Several injuries and traffic fatalities resulted statewide from these storms, but none are traced directly to Jackson County. Unfortunately, in both cases where damage estimates are provided, the hazard events are also listed as snowstorms or otherwise identified as winter storms. Sufficient data are not available to identify whether damages resulted from the ice storm or the snowstorm. Therefore, it can only be stated that winter storms, including ice storms and snowstorms, have resulted in \$5.1 million in damages in the State of Michigan.

Jackson County Ice Storms/Freezing Rain Events, 1993-2009		
Date	Description	MCD's
01/27/1994	0000: Heavy Snow/Freezing Rain. \$5,000,000 property damage statewide. Over the southern third of Lower Michigan, snow mixed with, then changed to, sleet and freezing rain. By late afternoon on the 27th, most of Lower Michigan had freezing rain or sleet. The freezing rain changed to rain by mid afternoon and continued, heavy at times after 7 pm. Overnight on the 27th and into the morning hours of the 28th, occasional rain continued. During the rest of the 28th, the area of freezing rain changed to snow. The snow, heavy at times, continued until around 2300 EST on the 28th. Light snow continued until mid afternoon on the 29th, but little additional accumulations occurred. During the freezing rain, around a quarter inch of ice had accumulated over the southern third of lower Michigan. This resulted in numerous outages. Detroit Edison reported 50,000 people affected by power outages. Consumers Power County reported 2,000 customers without power. Most of the power loss problems were over the southeastern part of Michigan even though this was not the area of heaviest ice accumulation or of the strongest winds. Most of the power loss occurred on Thursday, January 27th, during the ice accumulation phase of the storm. More than 150 schools canceled classes across the state. Across Michigan, there were numerous reports of cars skidding off the road and minor fender-bender type accidents. Also added as snow storm.	Unspecified location

Jackson County Hazard Mitigation

Jackson County Ice Storms/Freezing Rain Events, 1993-2009		
Date	Description	MCD's
02/27/1995	0100: Ice Storm. Freezing rain developed late on the 26th, then continued through the morning hours on the 27th. Several hours of sleet preceded the freezing rain in many places. Ice accumulations of one-quarter inch were common by late morning on the 27th. Numerous traffic accidents were reported, and most schools were closed. Despite the heavy icing, only widely scattered power outages occurred, since the storm was accompanied by very little wind.	Unspecified location
03/06/1995	0000: Ice Storm. Freezing rain and sleet occurred during the early morning on the 6th, but the heaviest accumulation of ice occurred early on the 7th, when many areas reported accumulations of one-quarter inch. Most schools were closed for at least one day, and many schools were closed on both the 6th and the 7th. A brief thaw occurred across the far south during the afternoon on the 7th, followed by a sharp temperature drop and a light accumulation of snow, making roads extremely hazardous once again during the evening on the 7th. Scattered power outages occurred, but the outages were not as widespread as what might have occurred had the storm been accompanied by strong winds. Many traffic accidents were reported.	Unspecified location
12/13/1995	1800: Ice Storm. Snow developed across southeast Michigan late in the afternoon on the 13th, then quickly changed to freezing rain and sleet during the evening. Snow accumulations were generally two inches or less, but 1/4 inch ice accumulations occurred in many places. At least 230 school districts throughout southern Michigan cancelled school on the 14th, as roads became icy and hazardous. Scattered power outages were also reported.	Unspecified location
03/14/1997	01:30 AM: Ice Storm. An Ice Storm lasting slightly more than 12 hours blanketed much of West Central Lower Michigan and all of Southwest Lower Michigan. The worst hit areas included the county of Jackson. Ice accumulations were near 1 inch. Power was out for up to 24 hours in Jackson County (affecting 38,000 customers). Trees and power lines were downed, and automobile accidents occurred continually throughout the storm. Emergency Management and Road Department budgets were heavily affected.	Unspecified location
01/04/1998	12:00 AM: Freezing Rain. A strong cold front moved in during the early morning hours of Sunday, January 4th. Temperatures behind the cold front fell into the upper 20's and lower 30's, changing light rain to freezing rain. One period of light freezing rain fell from after midnight to around 10:00 AM EST, resulting in light ice accumulations of around one-tenth of an inch. No serious problems were reported, other than icy spots on secondary roads and bridges/overpasses.	Unspecified location

Potential Hazards

Jackson County Ice Storms/Freezing Rain Events, 1993-2009		
Date	Description	MCD's
01/12/1998	12:00 PM: Freezing Rain. A brief period of freezing rain on the afternoon of Monday, January 12th, caused major roads and highways to become icy and hazardous across Jackson County. Numerous weather-related accidents were reported, including a several-car pile-up on the South Street bridge over U.S. Highway 127 in Jackson. Bridges and overpasses were most affected by icing.	Unspecified location City of Jackson Summit Township
03/09/1998	07:00 AM: Winter Storm, \$100,000 property damage . Heavy snow and blizzard conditions occurred, as rain changed to freezing rain and sleet in the Jackson area and surrounding communities. This icy mix changed to snow during the mid to late morning hours, but a prolonged period of sleet across Jackson County cut down on the snowfall total in the area. Snowfall was heavy and was reported at rates around and slightly over 1 inch per hour. Occasional white-outs were reported. Snowfall totals of 2 to 5 inches were reported. Schools and businesses were closed by this winter storm, the most intense of the 1997-98 winter season. Saturated ground in Jackson from heavy rainfall Sunday night and early Monday morning weakened an old oak tree, which was blown over by winds gusting to 30 mph just before daybreak. This tree crashed through a home in the city of Jackson and caused an estimated \$100,000 in damage. No injuries were reported from residents inside the home. Also listed as snow.	Unspecified location City of Jackson
03/20/1998	04:00 PM: Winter Storm. A mixture of snow, sleet, and freezing rain fell across much of southwest and south central Lower Michigan. The precipitation started out as a mixture of sleet and freezing rain Friday afternoon, then turned to mostly snow Friday evening. The ice at the onset made travel conditions hazardous for the Friday afternoon rush hour, and several minor weather-related accidents were reported along and south of the Interstate-94 corridor. Snow accumulations ranged from 3 to 4 inches in Jackson County. Also included as snow.	Unspecified location
02/05/1999	07:00 PM: Freezing Rain. A fast moving storm system produced a mix of light freezing rain, light snow, and sleet across southern lower Michigan during the evening hours. The band of precipitation was narrow, and the precipitation was light, only lasting for 3 to 4 hours. No damage was reported.	Unspecified location
01/30/2002	04:00 AM, Winter Storm. A stationary front set up to the south of lower Michigan, setting the stage for a prolonged overrunning precipitation event for southern lower Michigan on the 30th and 31st. Anywhere from eight to as much as thirteen inches of snow fell across the area, and freezing rain fell in Jackson County as low pressure moved into lower Michigan.	Unspecified location

Jackson County Hazard Mitigation

Jackson County Ice Storms/Freezing Rain Events, 1993-2009		
Date	Description	MCD's
	Winter Storm warning for JACKSON, snow up to 7" with a quarter inch of ice. Also listed as snow.	
1/31/2002	Ice storm warning was issued this day for the following Michigan counties: JACKSON Flash Report for JACKSON County. Road conditions icy and slippery. 25 businesses damaged. Power wires, phones, cable TV lines down due to accumulation of ice and falling trees. Flash Report from JACKSON County, weather related power outages. Winter Storm Warnings for JACKSON Ice Storm Warning for BARRY, CALHOUN, EATON, INGHAM, JACKSON Counties, ice accumulation up to half inch. School Closings in JACKSON	Unspecified location
12/1/2006	JACKSON, at 0600, an ice storm was reported at Jackson, with some trees and wires down. 05:00 AM, Ice Storm , 30,000 property damage. EVENT NARRATIVE: A third of an inch of ice was reported across most of Jackson county. EPISODE NARRATIVE: A strong early winter season low pressure system brought snow and freezing rain to southwestern and west central lower Michigan. The heaviest ice accumulations occurred over southern lower Michigan south of I-96 where many locations reported at least three tenths of an inch of ice.	City of Jackson Unspecified location

Sources: Michigan Hazard Analysis, the National Climatic Data Center (NCDC) storm events database, reports from the Law Enforcement Information Network (LEIN), and local input from plan participants.

Potential Hazards

Intra-County Summary of Hazards

A table, entitled “Actual and Potential Hazard Experience by Local Unit of Government”, provides a geographic analysis of hazards among local units of government and may be found on page 85. The table documents the location of actual experiences and identifies local units of government in which there is a potential for each of the various hazards described in the plan.

Jackson County Hazard Mitigation Plan

Actual and Potential Hazard Experience by Local Unit of Government

Local Unit	Civil Disturbances	Earthquakes	Subsidence	Scrap Tire Fires	Structural Fires	Wildfires	Riverine Flooding	Dam Failures	Energy Emergencies	Sig. Infrastructure Failures	Transportation Accidents	Haz. Mat. Incidents – Fixed Site	Haz. Mat. Incidents – Transportation	Nuclear Power Plant Accidents	Oil & Nat. Gas Well Accidents	Oil & Natural Gas Pipeline Accidents	Nuclear Attacks	Sabotage/Terrorism	Public Health Emergencies	Drought	Extreme Temperatures	Hail	Lightning	Severe Wind Events	Snowstorms	Ice & Sleet Storms	
County of Jackson	P	A	A	P	A	A	P	P	A	P	P	A	P	P	N/A	P	P	P	P	A	A	A	A	A	A	A	
City of Jackson	P	A	A		A		P		A	P	P	P	P	P	N/A	P	P	P	P	A	A	A	A	A	A	A	
Blackman Twp.	A	A	P		A	A	P		A	P	P	A	P	P	N/A	P	P	P	P	A	A	A	A	A	A	A	
Columbia Twp.		A			A	A	P	P	A	P	P	P	P	P	N/A	P	P	P	P	A	A	A	A	A	A	A	
Concord Twp.		A			A	A	P		A		P	P	P	P	N/A	P	P	P	P	A	A	A	A	A	A	A	
Grass Lake Twp		A			A	A	P		A		P	P	P	P	N/A	P	P	P	P	A	A	A	A	A	A	A	
Hanover Twp.		A			A	A			A			P		P	N/A	P	P	P	P	A	A	A	A	A	A	A	
Henrietta Twp.		A			A	A	P		A	P	P	P	P	P	N/A	P	P	P	P	A	A	A	A	A	A	A	
Leoni Twp.		A		P	A	A	P	P	A		P	P	P	P	N/A	P	P	P	P	A	A	A	A	A	A	A	
Liberty Twp.		A			A	A	P		A		P	P	P	P	N/A	P	P	P	P	A	A	A	A	A	A	A	
Napoleon Twp.		A			A	A	P		A		P	P	P	P	N/A	P	P	P	P	A	A	A	A	A	A	A	
Norvell Twp.		A			A	A	P		A		P	P	P	P	N/A	P	P	P	P	A	A	A	A	A	A	A	
Parma Twp.		A			A	A	P		A		P	P	P	P	N/A	P	P	P	P	A	A	A	A	A	A	A	
Pulaski Twp.		A			A	A	P		A			P		P	N/A	P	P	P	P	A	A	A	A	A	A	A	
Rives Twp.		A			A	A	P		A		P	P	P	P	N/A	P	P	P	P	A	A	A	A	A	A	A	
Sandstone Twp.		A	P		A	A	P		A	P		P		P	N/A	P	P	P	P	A	A	A	A	A	A	A	
Spring Arbor Twp.	P	A			A	A			A	P	P	P	P	P	N/A	P	P	P	P	A	A	A	A	A	A	A	
Springport Twp.		A			A	A	P		A		P	P	P	P	N/A	P	P	P	P	A	A	A	A	A	A	A	
Summit Twp.	P	A			A	A	P		A	P	P	P	P	P	N/A	P	P	P	P		A	A	A	A	A	A	
Tompkins Twp.		A			A	A	P		A		P	P	P	P	N/A	P	P	P	P	A	A	A	A	A	A	A	
Waterloo Twp.		A			A	A	P		A		P	P	P	P	N/A	P	P	P	P	A	A	A	A	A	A	A	
Vil. of Brooklyn		A			A	A	P	P	A	P	P	P	P	P	N/A	P	P	P	P		A	A	A	A	A	A	
Vil. of Cement City		A			A	A			A	P		P		P	N/A	P	P	P	P		A	A	A	A	A	A	
Vil. of Concord		A			A	A		P	A	P	P	P	P	P	N/A	P	P	P	P		A	A	A	A	A	A	
Vil. of Grass Lake		A			A	A			A	P	P	P	P	P	N/A	P	P	P	P		A	A	A	A	A	A	
Vil. of Hanover		A			A	A		P	A	P	P	P	P	P	N/A	P	P	P	P		A	A	A	A	A	A	
Vil. of Parma		A			A	A			A	P	P	P	P	P	N/A	P	P	P	P		A	A	A	A	A	A	
Vil. of Springport		A			A	A			A	P	P	P	P	P	N/A	P	P	P	P		A	A	A	A	A	A	
A = Actual Experiences P = Potential Experiences N/A = Not Available																											

Priority, Risk and Vulnerability Assessment

Jackson County Hazard Mitigation

Priority, Risk, and Vulnerability Assessment

The previous chapter of this plan identified a wide range of potential hazards facing Jackson County. However, each of these hazards does not pose the same degree of risk to the community. The purpose of this chapter is to identify those hazards which are likely to have the greatest impact on Jackson County in terms of property damage and public safety. Hazards will be reviewed in terms of their likelihood of occurrence, percentage of the population affected, severity of the hazard, and potential for negative impacts on the local economy. A review of these hazards in terms of their risk, and the vulnerability they pose to the community, will help guide the community in its development of mitigation strategies and actions. This type of analysis is critical. Jackson County, like other communities in Michigan, currently faces severe governmental revenue shortages. It is imperative that funds be allocated among projects and programs to deliver the greatest benefit to the community.

The hazard mitigation planning process included a means of community participation and involvement to identify hazards which pose the greatest threat to the community.

Hazards which pose the greatest threat to the community were identified through a rating process. The staff of the Region 2 Planning Commission reviewed identified potential hazards from the perspective of six characteristics. These characteristics include: likelihood of occurrence, percent of population affected, potential for causing casualties, negative economic affects, public awareness of the hazard, and the potential for corollary affects. Each of the potential hazards identified was rated for each of the six characteristics of hazards. This rating ranged from 0 to 10, with 0 being a rating of no significance and 10 being a rating of complete significance. In addition, the characteristics were weighted to reflect perceptions of community values based upon discussion with local officials at meetings of the Jackson Community Planning Committee. The weightings were endorsed by staff, the emergency management coordinator, and local officials who participation through the Community Planning Committee. The **likelihood of occurrence** received 30% of the total weighting. The **percentage of population affected** and the **potential for causing casualties** each received 20% of the weighting. The potential for **negative economic effects** received 15%. **Public awareness** of the hazard received 5%, and the **occurrence of any corollary events** received 10%. The rating of each hazard for each of the six characteristics, and the application of weighting of the characteristics resulted in a total rate score for each hazard. The higher the score, the more important the need to develop mitigation strategies and projects to reduce the severity of the event. The results of this analysis

Priority, Risk, and Vulnerability Assessment

are found in the following table. The total rating for each individual hazard was established by multiplying the individual rating by the weight assigned to each characteristic. The sums of each of these individual ratings composed the total rating for each hazard.

Hazard Ratings and Vulnerability														
		Potential for										Total		
		Likelihood of Occurrence		Percent of Population Affected		Causing Casualties		Negative Economic Effects		Public Awareness of Hazard				Corollary Effects
	Hazard	Rating	(Weighted)	Rating	(Weighted)	Rating	(Weighted)	Rating	(Weighted)	Rating	(Weighted)	Rating	(Weighted)	
2.3	Civil Disturbances	4	1.20	3	0.60	8	1.60	6	0.90	6	0.30	2	0.20	4.80
2.4	Earthquakes & Subsidence													
	2.4.1 Earthquakes	2	0.60	10	2.00	1	0.20	1	0.15	10	0.50	1	0.10	3.55
	2.4.2 Subsidence	2	0.60	0	0.00	1	0.20	0	0.00	10	0.50	0	0.00	1.30
2.5	Fire Hazards													
	2.5.1 Scrap Tire Fires	2	0.60	1	0.20	1	0.20	0	0.00	10	0.50	1	0.10	1.60
	2.5.2 Structural Fires	10	3.00	5	1.00	5	1.00	2	0.30	0	0.00	0	0.00	5.30
	2.5.3 Wildfires	8	2.40	2	0.40	1	0.20	1	0.15	9	0.45	2	0.20	3.80
2.6	Flooding Hazards													
	2.6.1 Riverine Flooding	9	2.70	1	0.20	1	0.20	4	0.60	5	0.25	5	0.50	4.45
	2.6.2 Shoreline Flooding	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0.00
	2.6.3 Dam Failures	2	0.60	3	0.60	1	0.20	3	0.45	10	0.50	5	0.50	2.85
2.7	Energy & Utility/Infrastructure Failures													
	2.7.1 Energy Emergencies	10	3.00	10	2.00	2	0.40	3	0.45	0	0.00	2	0.20	6.05
	2.7.2 Significant Infrastructure Failures	2	0.60	8	1.60	2	0.40	8	1.20	8	0.40	2	0.20	4.40
	2.7.3 Transportation Accidents	1	0.30	0	0.00	8	1.60	0	0.00	0	0.00	1	0.10	2.00

Jackson County Hazard Mitigation

2.8	Hazardous Materials Incidents													
2.8.1	Fixed Site HazMat Incident	5	1.50	1	0.20	4	0.80	2	0.30	9	0.45	1	0.10	3.35
2.8.2	HazMat Transportation Incident	5	1.50	3	0.60	1	0.20	1	0.15	5	0.25	1	0.10	2.80
2.8.3	Nuclear Power Plant Accidents	1	0.30	1	0.20	1	0.20	1	0.15	10	0.50	1	0.10	1.45
2.8.4	Oil & Gas Well Accidents	2	0.60	1	0.20	1	0.20	0	0.00	9	0.45	0	0.00	1.45
2.8.5	Pipeline Accidents	4	1.20	3	0.60	1	0.20	1	0.15	5	0.25	1	0.10	2.50
2.9	Homeland Security													
2.9.1	Nuclear Attacks	2	0.60	5	1.00	5	1.00	5	0.75	0	0.00	5	0.50	3.85
2.9.2	Terrorism/Sabotage/WMD	1	0.30	1	0.20	1	0.20	0	0.00	10	0.50	0	0.00	1.20
2.9.3	Public Health Emergencies	6	1.80	5	1.00	5	1.00	5	0.75	10	0.50	5	0.50	5.55
2.10	Extreme Weather													
2.10.1	Drought	2	0.60	10	2.00	1	0.20	1	0.15	9	0.45	2	0.20	3.60
2.10.2	Extreme Temperature	10	3.00	3	0.60	1	0.20	1	0.15	10	0.50	0	0.00	4.45
2.10.3	Thunderstorms													
2.10.3.1	Hail	10	3.00	4	0.80	1	0.20	1	0.15	0	0.00	2	0.20	4.35
2.10.3.2	Lightning	10	3.00	4	0.80	3	0.60	1	0.15	0	0.00	2	0.20	4.75
2.10.3.3	Severe Winds	10	3.00	4	0.80	1	0.20	1	0.15	0	0.00	2	0.20	4.35
2.10.3.4	Tornadoes	8	2.40	4	0.80	5	1.00	5	0.75	0	0.00	2	0.20	5.15
2.10.4	Severe Winter Weather													
2.10.4.1	Snow Storms	10	3.00	10	2.00	1	0.20	0	0.00	0	0.00	2	0.20	5.40
2.10.4.2	Ice and Sleet Storms	10	3.00	10	2.00	1	0.20	0	0.00	0	0.00	2	0.20	5.40
Percent of Points		30%		20%		20%		15%		5%		10%		100%

Priority, Risk, and Vulnerability Assessment

Hazard Risk and Vulnerability

Priority determinations for various hazards facing the Jackson Community were submitted to, and reviewed by the Jackson Community Planning Committee. The Jackson Community Planning Committee met, and continues to meet monthly at advertised meetings open to the public. An agenda item offers public comment, and public comment is welcome at the time of discussion as agenda items are considered.

In addition, area agencies, businesses, non-profit corporations and organizations, academic institutions, and other interested parties were provided opportunities to be involved in the hazard mitigation planning process at these meetings.

The Community Planning Committee is composed of the township supervisors of each of Jackson County's 19 townships, the village presidents of Jackson's 6 villages, the City of Jackson and representatives of the Jackson County Board of Commissioners. The priority ranking has also been reviewed by the Jackson County Commissioners County Affairs Committee, at a public meeting; and the department heads of the City of Jackson departments. Concurrence in these rankings was expressed in each case. Particular vulnerability is apparent for seven hazards, presented in priority order. Hazards presented in priority order include: energy emergencies, public health emergencies, ice storms, snow storms, structural fires, tornadoes, and civil disturbances.

Top Hazards	
#1	Energy Emergencies
#2	Public Health Emergencies
#3	Ice Storms
#4	Snow Storms
#5	Structural Fires
#6	Tornadoes
#7	Civil Disturbances

Jackson County Hazard Mitigation

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GOALS AND OBJECTIVES

Jackson County Hazard Mitigation

Goals and Objectives

The establishment of goals and objectives is a critical component of any community master plan. Goals provide general direction for the community and serve as the basis for the formation of policy and decision making. Goals help to explain what the community intends to achieve as a result of the planning process. Goals are long-term and generally represent broad visions for the community. Objectives are benchmarks which may be used to determine whether goals are met. Objectives are specific, measurable and have a defined completion date. Goals and objectives have been established for the Jackson Community Hazard Mitigation Plan. The development of these goals and objectives was based in part upon the goals included in the Jackson Community Comprehensive Plan, and in discussions with the Jackson Community Planning Committee. Goals and objectives for the Jackson Community Hazard Mitigation Plan are as follows. Goals are numbered from 1-7, and objectives have been established for each of the goals. These goals and objectives were reviewed by the Community Planning Committee and approved.

1. Guide future growth and development to assure a high quality, safe environment.

- A. Development should occur in a manner consistent with existing local community master plans for the County, City of Jackson, and Jackson County Townships and Villages. These plans must be reviewed when land use decisions and governmental expenditures are considered, and such decisions and expenditures should be consistent with the plans at the time of their implementation.
- B. Local units of government should promote high-density compact development which offers an ease in service delivery and the provision of infrastructure, and avoids an over-consumption of land.
- C. As components of the natural system, wetlands, rivers and floodplains, and wooded areas should be used to define development and channel growth into appropriate areas, and maintain natural systems for flood prevention.
- D. Municipal services should be extended only in accordance with adopted community plans as a means of channeling development to a manageable area.

2. Improve the transportation system to promote safety and efficiency.

- A. High crash, dangerous intersections should be identified, analyzed, and improved for safety.
- B. Transportation improvements should promote safety and ease of movement of people and freight.

3. Protect Jackson County's natural environment.

- A. Development should be strongly discouraged in floodplains.
- B. Jackson Communities should preserve their wetlands.
- C. Jackson County's lakes and streams should be protected and the quality of surface water maintained.
- D. Best management practices should be applied for storm water management throughout the County.

4. Strengthen and diversify Jackson's economy safely and efficiently.

- A. New industrial parks should be located in areas which are accessible to I-94 and major state arterial routes to promote Jackson's economic growth, and promote safety in the production and movement of goods.
- B. Jackson Communities should make use of Brownfields within urban areas for redevelopment to reduce urban sprawl and address contamination hazards.
- C. Areas which are contaminated should be scheduled for clean-up based upon a prioritized schedule consistent with available resources.

Jackson County Hazard Mitigation

5. Maintain a safe community and protect property.

- A. Local units of government should continue to promote regional fire protection agreements to improve safety and efficiency, and enable the collective purchase of specialized equipment to address potential hazards.
- B. Inter-governmental cooperation should be promoted in the area of police protection services.
- C. A feasibility study should be conducted to determine if a centralized public safety building which would house both the City of Jackson Police Department and the Jackson County Sheriff's Department should be constructed to enhance public safety.
- D. Hazard mitigation planning should be incorporated as a fundamental element in the local master planning process for the Region, County, City of Jackson, and Jackson County Townships and Villages with their next update according to state law.

6. Protect and preserve the housing stock of the community.

- A. Local building codes should be enforced for compliance for all new construction.
- B. Local units of government should consider the adoption of housing codes for older residential areas.
- C. A sprinkler system ordinance should be considered for application for multiple family structures.

HAZARD MITIGATION PLAN & STRATEGIES

Jackson County Hazard Mitigation

Hazard Mitigation Plan and Mitigation Strategies

Research conducted as a part of the preparation of this plan on various natural, technological, and man-made hazards reveals that, relative to other areas of the United States, Jackson County is a relatively safe place to live, one where loss of life and damage to property from these hazards is relatively low. The Jackson Community is not plagued with threats from recurrent hurricanes, riverine flooding common to other areas of the Midwest, earthquakes of the potential evident in the western United States, or the types of wildfires common in dry climates on the US west coast. The community does, however, face significant threat to life and property associated with electrical power failures, environmental health threats, severe winter snow and ice storms, and tornadoes. The purpose of this plan is to anticipate the potential consequences of these events upon the community and to take measures, and implement strategies, to minimize the impact of the severity of these hazards on our community. The plan is intended to protect the health, safety, and economic interests of residents by reducing the impacts of these natural, technological, and man-made hazards through hazard mitigation planning, awareness, and implementation. Action taken to eliminate or reduce the long-term risk to human life and property will not only help to minimize the impacts of disasters, but will enable a rapid recovery and restoration of community normalcy in the event of such an occurrence. As such, the Hazard Mitigation Plan is an essential element of emergency planning, in addition to the emergency services offered by Jackson County's law enforcement, fire protection, public health, and emergency medical services, and their activities and planning for preparedness, response, and recovery.

Local governmental units in Jackson County, in common with local units of government throughout the state, face increasingly difficult challenges in terms of revenues to fund local governmental operations, activities, and programs. Planning for natural disasters and implementing measures to mitigate those disasters, can, in the long run, save tax dollars. FEMA has noted that every dollar spent on hazard mitigation results in a savings of four dollars. While the responsibilities of local government extend well beyond addressing the potential hazards local communities face, the wise use of expenditures to mitigate such hazards will benefit the community in terms of the need of funding for all local governmental operations. Simply put, limited dollars should be expended where they generate the greatest amount of effectiveness in terms of the delivery of public services. It should also be noted that the collective efforts of local government in developing hazard mitigation strategies and actions will result in savings nationally, and will contribute to the well being of our nation.

Plan and Strategies

A set of mitigation strategies have been developed for Jackson County by the Jackson Community Planning Committee, a committee composed of representatives from the Jackson County Board of Commissioners and County Administration, the Jackson City Council and the City Administration, and the chief elected officials from Jackson County Townships and Villages. Nearly all of Jackson County's local units of government are represented and participate on the Community Planning Committee. In addition to the work of the Committee, each local unit of government was provided with a summary of the potential hazards facing Jackson County. These local units of government were requested to review these hazards and to propose mitigation strategies which could be applied within their community to reduce the potential impact. In each case, the issue of hazard mitigation planning was discussed at a public meeting where citizens, area agencies, businesses, non-profits, academic institutions and other interested parties, had the opportunity to participate in the hazard mitigation planning process. Comments were received, or documentation regarding the review by the local unit was received, for over half the local units of government in Jackson County. Reviews were conducted at regularly scheduled and advertised meetings of the Jackson City Council, and village and township boards in Jackson County.

The result of the efforts by the Jackson Community Planning Committee with input from citizens were a set of mitigation strategies which could be applied to address the hazards the community faces. These strategies could be categorized in two ways. First a set of strategies were proposed which could apply generally to address all of the hazards which face the Jackson Community. Second, strategies were identified to address each of the priority hazards identified by the Community Planning Committee. These two sets of strategies are outlined below.

Mitigation Strategies to Address All Hazards

The following mitigation strategies are intended to be implemented to address any hazard facing the Jackson Community.

1. **Implement an enhanced public information and education program, aimed at Jackson County citizens, regarding potential emergencies and how to prepare and respond.** As result of the preparation of this plan, and the comprehensive view of hazards facing the community, it was determined that there is a need to develop an enhanced public information and education program to

Jackson County Hazard Mitigation

inform citizens about the potential hazards facing the Jackson Community. A knowledgeable citizen base can do much to minimize the potential for damage and threat to human life.

2. **Incorporate hazard mitigation planning in community master planning.** As a means of mitigating the hazards facing the Jackson Community, there is a need to incorporate hazard mitigation planning into the Community master planning process. The protection of the public, health, safety and welfare is central to governmental planning. The incorporation of hazard mitigation planning as an elemental part of the community planning process will assure a review of the hazard mitigation plan at least once every five years when the Community Master Plan is reviewed and updated.
3. **Update the hazard mitigation plan every five years, or as deemed necessary.** An update of the hazard mitigation plan every five years will offer an opportunity to reassess the hazards facing the community and adjust mitigation strategies as necessary. This review and adjustment will result in a maximization of the use of limited resources, and a reduction of the impacts of the hazards.
4. **Enhance fire department communication, cooperation, and consolidation.** The City of Jackson, and the surrounding three townships of Blackman, Leoni, and Summit have, in recent years, enhanced fire protection services through improved cooperation and communication. The four units of government have implemented an automatic aid system whereby multiple units respond to structure fires within the boundaries of these four units of government. This arrangement assures that adequate equipment and personnel are available to address structure fires. The arrangement is viewed favorably by the local units of government, the firefighters, and the public. In addition, these local units of government have expanded cooperation in the area of training and the purchase of equipment. This has resulted in efficiencies and more effective service to the community. In addition, each of these steps has moved the departments closer to some type of consolidation arrangement. A study was prepared by the Region 2 Planning Commission at the request of the four units of government to determine the feasibility of establishing an authority for fire protection in the four units of government. While it is not likely that such an authority will be established in the near future, the study did result in a number of recommendations to improve safety and efficiency, and to move the local units of government closer to some type of cooperative system. These recommendations are now

Plan and Strategies

under review for possible implementation and are incorporated as a part of this plan (See Appendix A).

In addition, the fire departments of local units of government in the rural areas of the county have a history of working together. In some cases, local units of government have joined to construct the station and provide fire protection services.

5. **Determine the feasibility of constructing of a County Sheriffs/City Police Department building to enhance communication and cooperation in police services.** Jackson County and the City of Jackson are currently studying the feasibility of constructing a single building to house both the County Sheriff Department and the City Police Department. This arrangement would result in better communication between the two departments, and could lead to further cooperation and, perhaps, consolidation at some point in the future.
6. **Jackson County's Emergency Management Center should be reviewed to determine adequacy.** If the review justifies the construction of a new emergency management center to facilitate emergency warning and response, local officials must determine where the center could be located and how construction and necessary equipment could be financed.

Jackson County Hazard Mitigation

Mitigation Strategies for Specifically Identified Hazards

As noted in the “Hazard Risk and Vulnerability” chapter of this report, priorities have been established for the following hazards:

1. Energy Emergencies
2. Public Health Emergencies
3. Ice Storms
4. Snow Storms
5. Structural Fires
6. Tornadoes
7. Flooding

Each of these emergencies is addressed below. In addition, other hazards, which have not been identified as a particular hazard to county residents as a whole, but which, because of their severity, prevalence, or their impact on smaller numbers of residents within particular units of local government; or for which a mitigation strategy may be particularly effective in addressing a hazard, are also addressed. In each case strategies are proposed for implementation to minimize potential damages from these catastrophic events. A table identifying potential lead agencies and funding sources is located at the conclusion of the chapter (page 112).

Energy Emergencies

The top hazard facing the Jackson Community is the interruption of electrical energy to the community’s industry, business, institutions, and residences. Interruptions are frequently caused by storm events. The following mitigation strategies are proposed:

1. Critical facilities; hospitals, schools, jails and prisons, nursing homes, emergency communication facilities, care facilities and similar institutions require the use of backup generators for electrical power in the event of a power failure. Effective in 2010 a listing of such critical facilities will be prepared and

Plan and Strategies

- an inventory of backup generating equipment, including its capacity and condition, will be prepared to develop an estimate of equipment and facility needs. Based upon the inventory, a prioritized listing of equipment needs and costs can be assembled so that the purchase, update or repair of equipment can be scheduled based on resources available.
2. Where possible, to resist damage from severe winds and the accumulation of ice, electrical and telephone lines will be buried where the costs associated with the activity can be justified based upon the costs of service disruption, the likelihood of recurrence, or the public health and safety risk to the community. This determination will be implemented in 2010 through a joint effort of the Community Planning Committee, and representatives of Consumers Energy, the supplier of electrical energy to the Jackson Community. The cost of such action will be determined, and lines will be buried where justified.
 3. A community forestry program will be established with the purpose of creating and maintaining a disaster-resistant landscape and public rights-of-way. The purpose of the program will be to protect utility wires from encroaching or falling branches. Various utility service providers, including Consumers Energy, telephone companies, and cable television services, have programs to minimize tree damage to utility lines. These maintenance programs, and the development of a policy regarding the types of vegetation to be located within utility corridors to minimize potential service outage, should be coordinated. In 2010 representatives of each utility and the City of Jackson will be assembled to discuss the coordination of these activities and the development of a vegetation policy.
 4. Redundancies in utility and communication systems, especially those associated with critical community, safety, health and employment, will be implemented where feasible. Priority will be assigned to facilities based upon criteria to be established by the Community Planning Committee and the Emergency Management Coordinator. This activity will be initiated in 2010.

Public Health Emergencies

Public health emergencies were ranked the 2nd highest priority hazard facing Jackson Communities. Local leaders have expressed concern about the threats infectious diseases pose to residents. In particular, older

Jackson County Hazard Mitigation

residents are at risk, and Jackson County has and will continue to have, over the 20-year planning horizon, a comparatively large proportion of older persons in its population.

The responsibility for addressing public health emergencies rests with the Jackson County Health Department. The Health Department has an emergency preparedness coordinator. The emergency preparedness coordinator has the responsibility to assess community health emergencies and to implement appropriate measures to address these emergencies. The following mitigation strategies have been recommended and will be implemented with the assistance and participation of the health department emergency preparedness coordinator.

1. Residents are encouraged to receive immunizations against communicable diseases. The health department has a program to provide residents with immunizations against communicable diseases. Flu shots are issued at clinics held at the start of the flu season, usually in early October. Vaccines are available at these clinics. It is particularly important that immunization promotion be targeted to residents who are the most vulnerable to disease. Older residents and residents with conditions affecting immunity should be offered immunizations. It may be necessary to offer incentives to these vulnerable populations to boost the number of immunizations to a level which minimizes the spread of disease.

In addition, immunizations may result in a reduction in the amount of sick time taken by employees for Jackson area businesses. Savings in productivity may likely substantially exceed the cost of immunization program. The Jackson County Health Department is encouraged to continue its immunization program and to seek grant resources where necessary to assist in program implementation.

2. Vacant condemned structures should be demolished, and properties cleared of debris, to prevent rodent infestation.

The City of Jackson has a program to demolish condemned vacant structures. The program is operated in conjunction with neighborhood revitalization efforts to remove trash, rubbish, and debris from City of Jackson neighborhoods. It is imperative that this effort continue to operate at a level necessary to check rodent infestation and minimize the potential for fire.

Plan and Strategies

3. A program is in place in the community to increase public awareness of the causes, symptoms, and protective actions for disease outbreaks and other potential health emergencies. Low cost measures are available to individuals to protect themselves from infectious diseases. A campaign is necessary to enhance current public information and awareness programs regarding the causes, symptoms, and protective actions to address disease.
4. There is a need to assess the potential for diseases affecting livestock, and in particular diseases which may affect wildlife and cross over into farm animals and human populations. Currently, the MSU Cooperative Extension service offers information regarding the prevention of disease for farm animals and wildlife.

In addition, a program to cull the deer herd in the Ella Sharp Park area has been implemented. This program is undertaken in cooperation with the Michigan Department of Natural Resources. Herd management may be necessary in an on-going process to control population levels and maintain the health of deer herds to avoid the spread of disease. A continuation of the program is recommended, subject to a review and approval by the Michigan Department of Natural Resources.

Ice and Snowstorm Emergencies

The Jackson Community has experienced ice and snow storm emergencies in the past. These emergencies are associated with large amounts of snowfall, or ice storms in which the accumulation of ice results in slips and falls, transportation hazards due to impassable or slippery conditions, downed trees and tree limbs, and energy failures associated with fallen tree limbs and the sheer weight of ice on powerlines and poles. Mitigation strategies for ice and snow storms are as follows.

1. Pre-plan for debris management staging and storage areas. In anticipation of downed trees, tree limbs, and snow accumulation, strategies must be in place to predetermine locations for the collection and processing of snow in urban areas, and tree limbs. The establishment of such staging areas will facilitate the clearing of roads and handling of debris and snow.

Jackson County Hazard Mitigation

2. Identify local schools and other public buildings throughout the county which could be designated as warming shelters where vulnerable residents could go to escape the effects of loss of heat in their homes due to power outages. Once identified, a public awareness campaign should be initiated to inform citizens of the availability of these shelters. The identification of potential shelters will be completed in 2010.

Structural Fires

Structural fires pose a threat to human life and are a leading cause of property damage and destruction in the Jackson Community. In addition to these losses, the cost of fire protection services is perhaps the highest budgeted item for most local units of government. Mitigation strategies to both reduce the incidence of structural fires and reduce the cost of fire protection services are as follows:

1. Expand the use of fire protection sprinkler systems, particularly in existing older buildings in downtown areas, and in other areas of the community. Fire protection sprinkler systems are effective in extinguishing structure fires. Sprinkler systems are especially important in high rise buildings in the Jackson downtown area, where, due to the number of persons working in buildings, evacuation of large numbers of people is cumbersome. It is suggested that a committee be established to consist of the emergency management coordinator for the county, the fire inspector for the City of Jackson, and building owners in the downtown area, to discuss and address this issue.
2. The Jackson Community has a good system of fire protection provided by its local units of government, the City of Jackson and Jackson County townships and villages. An effective mutual aid system exists. In addition, automatic aid exists between the City of Jackson and the townships of Blackman and Summit. While the community has made much progress in the development of intergovernmental cooperation in responding to fire emergencies, and in the areas of equipment purchases and training, more can and should be done to promote cooperation among and between units, and to reduce fire protection costs. The goal of such efforts should be the enhancement of fire protection services at a reduced cost. The responsibility for the implementation of these measures rests with the collective fire departments and their local units of government in the community.

Plan and Strategies

Tornadoes

Jackson County has experienced deaths and substantial property damage from tornadoes in the past. While no serious tornado damage has been experienced over the past several years, tornado events are possible and could result in loss to human life and substantial property damage in the community. Mitigation strategies to address the potential effects from tornadoes are as follows:

1. Public early warning systems will be assessed to determine their function, adequacy, and coverage. Sirens will be installed where warranted, and those in operation will be repaired or replaced where necessary.
2. There is a need to ensure that anchoring required in building codes and the HUD manufacturing code for manufactured housing is provided and properly installed. The responsibility for this review rests with local units of government.
3. Shelter areas – certain areas should have tornado shelters that are accessible to nearby residents and the public. Local officials will meet with mobile home park owners to determine the feasibility of installing tornado shelters for park residents where none currently exist. Where there is a need for such shelters funding alternatives should be determined and park operators should be encouraged to construct the shelter.

Flooding

As noted in this plan, flooding in Jackson County has not resulted in extreme citizen hardship or financial loss. In addition, flooding has not received a high priority for action by the public or community leaders. Still, there is a potential for flooding which could result in a serious public health and safety emergency and high cost to the community. The following mitigation strategies are established:

1. Newly prepared, preliminary Flood Insurance Rate Maps will be reviewed to determine whether the designated 100 year flood plains could result in substantial flood losses. In the event such losses are determined possible, flood prevention measures will be identified and implemented to the extent of financial feasibility. Map revisions may be sought, where necessary.

Jackson County Hazard Mitigation

2. Floodplain regulations to promote floodplain management will be developed or updated in each community which has an identified flood hazard in the Flood Insurance Study for Jackson County.
3. Local units will maintain catch basins and storm sewers to reduce the potential for flooding due to clogged systems.
4. Four bridges crossing the North Branch of the Kalamazoo River in the Village of Concord have the potential to cause constriction. These include the Spring Arbor Road, Spring Street, Main Street, and railroad bridges. At the time these are replaced, their replacement will include consideration to reduce their potential constrictive character in a cost effective manner.
5. Wetlands and lakes act as natural retention basins, temporarily storing runoff and releasing it slowly. Local units of government will consider the importance of wetlands and lakes in this process as they prepare and implement local land use plans.

Mitigation Strategy Prioritization and Implementation

Strategy Prioritization

The mitigation strategies proposed to address potential hazards in Jackson County were analyzed to determine their benefit, cost, and implementation potential. Though in each case, the analysis was subjective, the process resulted in a defensible priority determination for strategy implementation. The initial determination for benefit, cost, and implementation potential was made by the Region 2 Planning staff, and confirmed with organizations or entities charged with implementation. The benefit of each strategy was determined to be of “High”, “Medium”, or “Low” value relative to the range of strategies suggested, though in actuality, even those strategies labeled low in benefit would represent true progress in the mitigation of hazards facing Jackson County. Costs were similarly estimated with consideration to both capital and on-going, long-term operational costs. Implementation potential represents the ease of implementation, given political considerations, instances where the cost would not necessarily benefit the implementing organization, and the need to convince third party organizations of the value of the implementation of the strategy (as in, for example, the need for a manufactured housing park to construct a shelter).

Plan and Strategies

Actual priority determination involved a mathematical process whereby benefits, costs, and implementation potential were assigned either one, two, or three points, with high benefit, low cost, and high implementation potential receiving three points. Points were then summed, placed on a histogram, and ranges for the “Top”, “High”, and “Medium” priority strategies were selected.

Jackson County Hazard Mitigation

Jackson County Hazard Mitigation Plan HAZARD MITIGATION STRATEGY PRIORITIZATION					
Hazard	Strategy	Estimates of Benefits and Costs		Implementation Potential	Priority
		Potential Impact (Benefit)	Cost		
Energy	1. Generators	Medium	Medium	Medium	Medium Priority
	2. Buried Lines	High	High	Low	
	3. Tree Pruning	Medium	High	Medium	
	4. Redundancy	Medium	High	Medium	
Public Health	1. Immunization	High	Medium	Medium	Medium Priority
	2. Demolition of Condemned Structure	Low	Medium	Medium	
	3. Public Awareness	High	Low	High	Top Priority
	4. Disease Crossover	Low	Low	Medium	
Ice and Snow	1. Debris Management	Low	Low	High	Medium Priority
	2. Warming Shelters	Medium	Low	Medium	Medium Priority
Structural Fires	1. Sprinkler Older Bldgs	High	High	Low	
	2. Cooperation Among Fire Departments	High	Low	Medium	High Priority
Tornadoes	1. Public Warning System	High	Medium	High	High Priority
	2. Manufactured Housing Anchoring	Low	High	High	
	3. Shelters	Medium	Medium	Low	
Flooding	1. Review FIRM's	High	Low	High	Top Priority
	2. Floodplain Regulations	High	Low	High	Top Priority
	3. Catch Basin Management	Medium	Medium	Medium	Medium Priority
	4. Bridge Replacement	Low	High	Low	
	5. Wetland Protection in Local Planning	High	Low	Medium	High Priority

Plan and Strategies

The results of this analytical process are shown on the table entitled, “Hazard Mitigation Strategy Prioritization. Top priority strategies were identified to address public health and flooding hazards. “High” priority strategies address energy, public health, and tornado hazards. “Medium” priority strategies address ice and snow and flooding.

Responsible Lead Organization, Funding, and Time-Frame for Implementation

The table entitled “Responsible and Potential Lead Agencies” identifies the agency or agencies responsible for strategy implementation. More than one agency is identified as responsible for the implementation of a particular strategy if there is a logical reason for such designation. For example, bridge replacement may be the responsibility of the Jackson County Road Commission or the Michigan Department of Transportation, depending on its location. Other agencies are identified as potential lead organizations if they could assume some or all of the responsibility for implementation of the strategy.

“Top” priority strategies, including the implementation of a public awareness campaign for infectious disease, the review of proposed Flood Insurance Rate Maps, and preparation and adoption of local flood plain regulations, should be under way or implemented immediately upon plan adoption. “High” priority strategies, including cooperation among fire departments, assessment and enforcement of public warning systems, and wetland protection in local planning, will be implemented upon adoption of the Jackson County Hazard Mitigation Plan. The implementation of “medium priority” strategies will be initiated in 2011.

Jackson County Hazard Mitigation

Jackson County Hazard Mitigation Plan																					
RESPONSIBLE AND POTENTIAL LEAD AGENCIES AND POSSIBLE FUNDING SERVICES																					
Hazard	Strategy	Responsible and Potential Lead Organizations												Possible Funding Sources							
		R2PC	JCSD	R2CAA	JCHD	JCDA	Local Units of Gov't	Utilities	Private	CJPW, JCRC	CJCD	MSUCE	MDOT	FEMA	County Funds	CDBG	R2CAA	Private	Foundation	Local Units of Gov't	MDOT / FHWA
Energy	1. Generators		P				R	P	R					X	X	X	X	X	X		
	2. Buried Lines							R						X				X			
	3. Tree Pruning							R		R				X		X		X	X		
	4. Redundancy		P					R	R					X	X	X	X	X			
Public Health	1. Immunization				R	P								X	X	X	X		X		
	2. Demolition of Condemned Structure			P			R				P			X		X					
	3. Public Awareness				R	P								X		X	X		X		
	4. Disease Crossover				P							R		X				X	X		
Ice and Snow	1. Debris Management						R			R				X	X	X				X	
	2. Warming Shelters				P	P	R							X	X	X	X			X	
Structural Fires	1. Sprinkler Older Bldgs						R		P									X			
	2. Cooperation Among Fire Departments						R													X	
Tornadoes	1. Public Warning System		R											X		X	X	X		X	
	2. Manufactured Housing Anchoring						R	P						X				X		X	
	3. Shelters		R				R	P						X	X	X	X	X		X	
Flooding	1. Review FIRM's	P					R													X	
	2. Floodplain Regulations	P					R													X	
	3. Catch Basin Management						R			R			R	X		X		X		X	
	4. Bridge Replacement									R			R							X	X
	5. Wetland Protection in Local Planning	P					R													X	
		R + Responsible Organization P + Potentially Responsible Organization																			
R2PC = Region 2 Planning Commission; JCSD = Jackson County Sheriffs Dept; R2CAA = Region 2 Community Action Agency; JCHD = Jackson County Health Dept; FEMA = Federal Emergency Management Agency; CDB6 = Community Development Block Grant; CJPW = City of Jackson Public Works Dept.; CJCD = City of Jackson Community Development; MDOT = Michigan Department of Transportation; JCDA = Jackson County Department on Aging; JCRC = Jackson County Road Commission																					

Plan and Strategies

Implementation of Strategies by Local Units of Government

Each of Jackson County's local units of government has at least one action that may be taken as a means of mitigation of a disaster. These actions, or the implementation of a strategy contained within the plan, are shown on the table entitled "Strategy Implementation by Local Unit of Government." The reference to Jackson County includes involvement and participation by the Jackson County Health Department; and the independent agency, the Jackson County Road Commission. Each of Jackson County's townships and villages are shown on the table, as are the city of Jackson and Jackson County.

JACKSON COUNTY HAZARD MITIGATION PLAN
Strategy Implementation by Local Unit of Government

		Jackson County	City of Jackson	Blackman Twp	Columbia Twp	Concord Twp	Grass Lake Twp	Hanover Twp	Henrietta Twp	Leoni Twp	Liberty Twp	Napoleon Twp	Norvell Township	Parma Twp	Pulaski Twp	Rives Twp	Sandstone Twp	Spring Arbor Twp	Springport Twp	Summit Twp	Tompkins Twp	Waterloo Twp	Vil of Brooklyn	Vil of Cement City	Vil of Concord	Vil of Grass Lake	Vil of Hanover	Vil of Parma	Vil of Springport
Energy	1. Generators	X																											
	2. Buried Lines																												
	3. Tree Pruning																												
	4. Redundancy																												
Public Health	1. Immunization	X																											
	2. Demolition of Condemned Structure		X	X						X										X									
	3. Public Awareness																												
	4. Disease Crossover																												
Ice and Snow	1. Debris Management	X	X																										
	2. Warning Shelters	X																											
Structural Fires	1. Sprinkler- Older Buildings		X																										
	2. Cooperation Among Fire Departments		X	X						X										X									
Tornadoes	1. Public Warning System	X																											
	2. Manufactured Housing Anchoring			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
	3. Shelters	X																											
Flooding	1. Review FIRM's		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X	
	2. Floodplain Regulations				X		X		X		X	X		X	X	X	X		X		X	X							
	3. Catch Basin Management		X	X						X								X		X									
	4. Bridge Replacement	X																											
	5. Wetland Protection in Local Planning			X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X							

PLAN MAINTENANCE & IMPLEMENTATION

Jackson County Hazard Mitigation

Plan Maintenance and Implementation

Implementation

The implementation of the Jackson County Hazard Mitigation Plan will depend upon the cooperative efforts of the Jackson Community Planning Committee, the Emergency Management Coordinator within the Jackson County Sheriff's Department, and local units of government. Upon plan adoption, the Community Planning Committee will begin the implementation of the strategies established in the Hazard Mitigation Plan. Implementation will focus first on strategies identified as "Top Priority". Where opportunities become apparent that enable implementation of a strategy due to a temporary or immediate change in perceived benefit, cost opportunity, or implementation potential, strategies may be implemented to take advantage of such opportunities. A sub-committee may be established to address the details of specific mitigation strategies within local units of government which might be affected by specific hazards in the plan. Where capital improvements are necessary, or where significant outlays of community funds are required, the Community Planning Committee will work with local units of government to identify, in detail, the improvement or project necessary, and to locate appropriate funding.

The Monitoring of Progress

The implementation of the policies and strategies contained with this plan will be monitored by the Jackson Community Planning Committee. The Committee meets on a regular basis and will review hazardous events, their effect upon the Community, and the degree to which hazard mitigation strategies were effective in protecting human life and minimizing property damage. The Committee will oversee implementation activities by local units of government, agencies, and private sector entities. The plan will be amended when deemed necessary by the Committee or upon the request of the State of Michigan or Federal government.

In its evaluation of the Hazard Mitigation Plan, the Community Planning Committee will use the following criteria:

1. Has there been a potential or actual change in the hazards facing Jackson County?
2. Has new development in the Community resulted in a change in circumstances or conditions which necessitates a review or revision of strategies?

Plan Maintenance and Implementation

3. Have actions been taken, or strategies applied that reduce or eliminate the hazard's impact on the community?
4. Are there new programs or funding available to address specific hazards facing the Jackson Community?
5. Are there changes in laws, regulations, techniques or practices that warrant an amendment to the plan?

Plan Update

The Jackson County Hazard Mitigation Plan will be reviewed and updated by amendment in 2015 or as deemed necessary prior to 2015. A review will take place within every five years, following plan approval.

The Jackson County Hazard Mitigation Plan will also be incorporated into the community master planning processes. The Jackson Community Master Plan was adopted in 2005, and will be reviewed and updated, as required by the Michigan Planning Act, PA 110 of 2006, in 2010.

In addition, local units of government, including the City of Jackson, and Jackson County townships and villages, will be encouraged to incorporate the hazard mitigation planning process into their local master plans. At the time of update, the community will be advised of the contents of the Hazard Mitigation Plan so that they may incorporate relevant provisions of the plan into their local master plan. In addition, the local units will be encouraged to review potential hazards facing their unit of government and to develop mitigation strategies which can be applied. The strategies resulting from this effort will be provided to the Community Planning Committee for their use in the preparation of the update to the Jackson County Hazard Mitigation Plan.

Public Participation

Public participation is viewed to be an important component in the planning process, in the development of the goals, objectives, and strategies contained within the plan, and also to facilitate the implementation of strategies.

The public, including area agencies, businesses, non-profits, academic institutions, and other invested parties, has and will continue to be offered opportunities for participation in the hazard mitigation planning process through the following:

Jackson County Hazard Mitigation

1. **Public hearings** – public hearings will be held before each unit of government which considers adoption of the Jackson County Hazard Mitigation Plan.
2. **Public discussion** – public discussion has, and will continue to be encouraged and received in open forums at Community Planning Committee meetings, meetings of the City of Jackson, Jackson County township and village planning commission meetings, and the meetings of the Jackson City Council, the Jackson County Board of Commissioners, township boards, and village councils.
3. **Web based opportunities** – Web based opportunities for citizen participation in the implementation and subsequent updates to the Jackson County Hazard Mitigation Plan will be continued on an ongoing basis as the Plan is approved, reviewed and updated in the future. The draft Jackson County Hazard Mitigation Plan has been available for public review on the Region 2 Planning Commission and Jackson County websites.

APPENDIX A

Jackson County Hazard Mitigation

APPENDIX A

In September, 2008 the Region 2 Planning Commission released a “Study of a Metropolitan Fire Authority”. This study was prepared for, and with the involvement of, the City of Jackson and the Townships of Blackman, Leoni, and Summit. The purpose of the study was to determine if the establishment of a metropolitan fire authority composed of the four units of local government was advisable. The study concluded that a metropolitan fire authority is not feasible at the present time. The study did, however recommend continued efforts toward mutual cooperation and participation in various aspects of fire protection services which lead toward a metropolitan approach. These recommendations are as follows:

1. Establishment of a Cooperative Capital Apparatus, Equipment, and Supplies Policy.

- | | |
|--------------------|--|
| Proposal: | The establishment of a cooperative apparatus, equipment, and supplies policy is proposed. The purpose of the policy is to reduce the cost and achieve standardization over the long term in vehicles, equipment, and supplies throughout the Jackson metropolitan area. |
| Advantages: | Standardization of apparatus and equipment would allow the transfer of vehicles and equipment among departments or to a future metropolitan department, the facilitation of maintenance, reductions in costs, equipment compatibility, and fire-fighter familiarity system-wide. |
| Obstacles: | Some departments may have preferences for specific brands of vehicles, equipment, or supplies. |

Appendices

Means of

Implementation:

Two committees composed of one representative of each department are recommended to be established for capital purchases, and for the purchase of equipment and supplies. These committees will inventory apparatus and equipment, develop replacement and replenishment schedules, and come to agreement on the purchase of vehicles, equipment and supplies.

The Jackson Community Ambulance (JCA) has been contacted and has indicated a willingness to discuss department participation in purchasing with the ambulance companies who currently have a joint purchasing arrangement. The departments may participate with purchases under the same pricing policy as those which exist for the ambulance companies.

Recommendation:

The Steering Committee recommends the immediate implementation of this suggestion through the appointment of the two committees, and believes each department would benefit individually and collectively.

2. Establishment of an Area-Wide Maintenance Program.

Proposal:

Currently, each of the four departments outsources the repair of vehicles. Repairs are completed in various locations and involve transportation costs. It may be possible to contract with a single provider for repair and maintenance services. Each of the four departments could be billed for work performed on their vehicles. Work could take place within the City's central station because of available space and lift equipment currently in place, or in another agreed upon location.

Jackson County Hazard Mitigation

Advantages:

1. Maintenance work could be scheduled on the basis of system-wide priority.
2. Efficiencies could be realized due to the consolidation of maintenance work in one location.
3. Maintenance work could be scheduled on the basis of system-wide priority.
4. The question of liability with the possible use of the City's central station has been addressed and is not an obstacle to implementation.

Obstacles:

Blackman Township's ladder could not be serviced at the City's central station because of the weight and length of the vehicle.

Means of Implementation:

1. The City's main station on N. Jackson Street, a centrally located facility, has lift equipment capable of handling fire vehicles, and space available to conduct such work.
2. The departments will contract with a single provider for vehicle maintenance and repair services.

Recommendation:

It is recommended that a single provider be engaged. Each of the three townships and the city would benefit under this arrangement.

3. Automatic Mutual-Aid for Rescue Responses.

Proposal:

The four departments could agree upon automatic mutual-aid for emergency rescue responses based upon a protocol designed to achieve rapid response and efficiency.

Appendices

Advantages:

1. Emergency rescue services could be provided by adjacent departments in locations where the service cannot be provided efficiently by the department of jurisdiction.
2. Automatic mutual-aid rescue responses could facilitate situations involving multiple emergency rescue requests.
3. An automatic mutual-aid arrangement for rescue may be very beneficial between the City and Summit Township.

Obstacles:

1. Automatic rescue response for Blackman Township would probably not work because the township has such a rapid response time. Their vehicles usually arrive at scenes prior to fire department vehicles.
2. Leoni cannot respond to areas within the City of Jackson faster than the City can respond.

Means of

Implementation:

An agreement for automatic mutual-aid for fire department rescue may be achieved using the model that successfully resulted in automatic mutual aid for structure fires. However, the concept appears only to be feasible for implementation between the City of Jackson and Summit Township.

Recommendation:

The involvement of the fire unions is recommended prior to attempting further study of this measure.

Jackson County Hazard Mitigation

4. Sharing of Reserved Apparatus.

Proposal: The four fire departments collectively could reduce apparatus requirements through the sharing of equipment in reserve.

Advantages: The sharing of reserve apparatus may result in a savings to each department by a reduction of apparatus necessary to meet reserve needs, and a reduction in the space required to house these vehicles. Such an arrangement would also allow for “cherry picking” system-wide to keep the best equipment for reserve purposes and allow the sales of remaining apparatus. Superfluous equipment could be sold.

Obstacles:

1. Insurance may be a problem because each of the four departments uses different insurance agencies.
2. Some vehicles are equipped with a capacity for only two personnel within the cab.
3. Because of variability and equipment, there is a lack of familiarity with vehicles which could create operational problems during fire emergencies.
4. The vehicles would have to be equipped with appropriate equipment.
5. There is not a need for such an arrangement because of the availability of such apparatus.

Means of Implementation: A committee composed of representatives from each department may be established to review the reserve equipment needs and available vehicles. Available reserve vehicles could be housed at the City’s central fire station.

Appendices

Recommendation:

The Steering Committee advises further exploration of this measure as equipment ages. There is no immediate need for the sharing of reserve apparatus. One concern is the safety of firefighters as they operate equipment with which they are unfamiliar.

5. Refinement of Automatic Mutual-Aid System:

Proposal:

The operational characteristics of the automatic mutual-aid system could be reviewed to determine whether the response to a structure fire by all departments is necessary on all occasions. If it can be determined that response is not necessary by all departments for structure fires in certain locations without a reduction in efficiency or safety to firefighters, then such a reduction should be implemented.

Advantages:

Reducing the number of responses system-wide could result in a savings in cost, reduction of wear and tear on fire apparatus, and a reduction in the risk associated with emergency vehicles responding under lights and siren.

Obstacles:

1. Insurance may be a problem because each of the four departments uses different insurance agencies.
2. Generally there is a preference to not reduce man-power at fires.
3. The implementation of the proposal may be of concern to the fire department unions.

Jackson County Hazard Mitigation

Means of

Implementation: Central Dispatch issues the alarm and provides the location of structure fires. The individual departments determine who will go to the fire. To effectuate the change a simple change in protocol, and a corresponding adjustment to the mutual-aid agreement, would be necessary.

Recommendation:

Involvement of the fire unions is recommended to study and, perhaps, facilitate implementation.

6. Expansion of Centralized Training and Testing.

Proposal: Departments may enhance and expand their centralized training and testing programs to achieve greater efficiency, and pre-qualify potential employees.

Advantages:

1. More firefighters and public safety officers could be trained more efficiently.
2. Fire personnel would become more familiar with the personnel of other departments, which would facilitate their operations at fire scenes.

Obstacles: There are no known obstacles.

Means of

Implementation: A committee could be established to work out a curriculum to do training and testing in areas such as the pulmonary/respiratory fit test, hazmat training, and the expansion of the use of technology within departments.

Appendices

Recommendation:

The measure is recommended for immediate implementation.

7. Continuation of Meetings to Consider Cooperation Improvements.

Proposal: It is recommended that elected officials from the townships, the Jackson City Manager, and the fire and public safety departments' leadership continue to meet on a regular basis to assess progress and propose additional means of cooperation, leading toward a metropolitan approach to the provision of fire protection services.

Advantages: The City and townships can continue to focus on service consolidation for improvements in safe, effective, and economical fire protection services.

Obstacles: None.

Means of Implementation: The Committee shall agree to continue to meet and establish meeting schedules, agendas, and minutes of meetings.

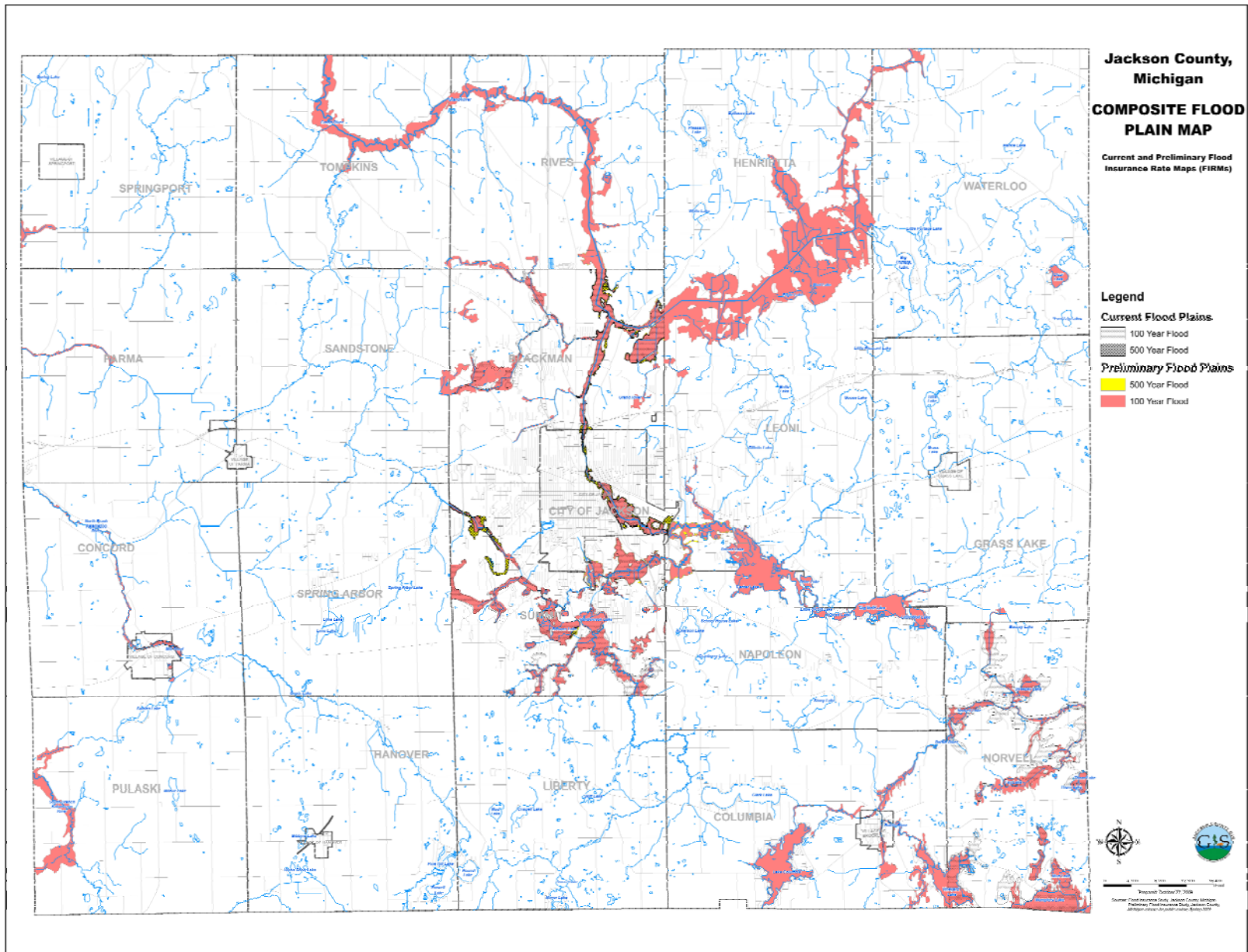
Recommendation:

The measure is recommended for immediate implementation.

Jackson County Hazard Mitigation

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APPENDIX B





Jackson County Health Department

1715 Lansing Avenue • Ste. 221 • Jackson, Michigan 49202

Phone (517) 788-4420

Fax (517) 788-4373

To: Human Services Committee
Board of County Commissioners

From: Shelly Bullinger
Director of Health Education/Health Promotion

Subject: Fee schedule update for Car Seat Program

Date: October 28, 2011

Motion Requested: Approve the updated Car Seat Program fee schedule for FY 2012

I. Background

- A. Motor vehicle crashes are the number one killer of children 0-14 years old. Research on the effectiveness of child restraints has found them to reduce the risk of fatal injury by 71% for infants and 54% for toddlers when used correctly. Furthermore, children ages 4-8 restrained in booster seats are 59% safer than in a seat belt alone. Approximately 88% of Jackson County families do not buckle their children in correctly, putting them at risk of serious or even fatal injuries.
- B. The Car Seat Program (CSP) provides brand new, safe car seats and safety seat education to all residents with services focused on the low income population. 95% of CSP clients are WIC/Medicaid eligible, qualifying them for a discounted rate which is \$5-\$10 less per car seat covered by special grant funding received throughout the year, such as Jackson Traffic Safety Program, Advanced Turning, Office of Highway and Safety Planning. We are the only low cost option in the county.
- C. Car seat wholesale purchase prices fluctuate on a regular basis.

II. Current Situation

- A. The fee schedule in place is static even though our purchase prices fluctuate regularly.
- B. Last year we provided 650 families with car seats and education.

III. Analysis

- A. Strategic—One of strategic goals is a healthy community and this aids in preventing childhood injuries.
- B. Financial—We are passing on the costs of purchasing the car seats to the end users. Discounts are given to low income but are offset through grant funds.

- C. Customer—The program targets low income families that might not have the resources to secure a safe car seat.
- D. Timing—The program is ongoing and the revised fee schedule can be implemented after final approval.

IV. Recommendation: Approve the proposed car seat program fee schedule that will allow for the on-going change in purchase price that is passed on to the client.

The Title recommends Motion Requested.

Attachments: Recommended Car Seat Program Fee Schedule for FY 2012
Current Car Seat Program Fee Schedule

Current Fee Schedule

1. Car Seat Program

<u>Type of Car Seat</u>	<u>Cost (WIC/Medicaid)</u>	<u>Cost (Non-WIC/Non-Medicaid)</u>
Infant.....	\$20.00.....	\$35.00
Convertible	\$30.00.....	\$40.00
Booster (high back with harness).....	\$30.00.....	\$40.00
Booster (high back without harness)..	\$15.00.....	\$25.00
Booster (no back).....	\$10.00.....	\$15.00

<u>Short Term Rentals (Less than one month)</u>	<u>Cost</u> ...	<u>Refund on Return of Seat</u>
Infant, convertible, and high back		
booster with harness.....	\$20.00.....	\$10.00
High back booster with out		
Harness, and no back booster.....	\$10.00.....	\$5.00

* Car Seat Program assumes that car seat cost increases, if applicable, may be factored in annually.

Proposed

Car Seat Program Fee Schedule (2012)

Car Seats

Cost

Infant Carrier, Convertible, Boosters.....Wholesale price plus sales tax*

Education Fee.....\$15.00

*WIC/Medicaid eligible clients will receive a discount of \$5 - \$10, depending on the seat purchased.

Short term rentals

Infant Carrier, Convertible, Boosters.....\$20 rental / \$10 refund (upon return)



RICK SNYDER
GOVERNOR

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY
LANSING



DAN WYANT
DIRECTOR

November, 2011

Dear Local Health Department Health Officer:

Attached for your review and signature is an original of the Department of Environmental Quality (DEQ) – Local Health Department (LHD) agreement for Fiscal Year (FY) 2011-2012 and appendix A. Programs for Noncommunity Water Supply, Drinking Water Long-Term Monitoring, Federal Beach Monitoring, Public Swimming Pools, Septage, and Campgrounds are included as applicable to your LHD. Please print off **two** copies and sign **both** copies.

The previous contract expired on September 30, 2011. We anticipate the LHDs will provide services on a continuation basis while these new agreements are reviewed and signed.

Please check your federal identification number and remittance address and have all documents signed by the appropriate county official, as indicated. Return **two** originals to:

DEQ, Resource Management Division
Administration Section
PO Box 30241
Lansing, MI 48909-7741

If you have any questions pertaining to a specific program, please contact the person listed for the appropriate program. General questions relating to overall contract administration can be directed to Ms. Pam Green, Administration Section, at 517-241-1261, or via email at greenp3@michigan.gov.

Sincerely,

Pam Green
Administration Section
Resource Management Division

Attachment

Cc: Environmental Health Director



LOCAL HEALTH DEPARTMENT GRANT CONTRACT
BETWEEN THE MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
AND JACKSON COUNTY HEALTH DEPARTMENT

This Grant Contract ("Contract") is made between the Michigan Department of Environmental Quality, (MDEQ), Resource Management Division (RMD) ("State"), and Jackson County Health Department ("Grantee").

The purpose of this Contract is to provide funding in exchange for work to be performed for the project named below. The State is authorized to provide grant assistance pursuant to Michigan Safe Drinking Water Act, 1976, PA 399, as amended; Natural Resources and Environmental Protection Act, 1994, PA 451, as amended, Parts 117 and 201; Public Health Act, 1978, PA 368, as amended; and Federal Water Pollution Control Act, 33 U.S.C. 1251 et seq. **Legislative appropriation** of Funds for grant assistance is set forth in **Public Act 63 of 2011**. This Contract is subject to the terms and conditions specified herein.

Project Name: Local Health Department Master Grant Contract

Amount of grant: \$51,991.00 % of grant state \$50,435.00 / % of grant federal \$1,556.00

Start Date (date executed by MDEQ): 10/01/2011 End Date: 09/30/2012

GRANTEE CONTACT:

Ted Westmeier, Health Officer

Name/Title

Jackson County Health Department

Organization

1715 Lansing Avenue, Ste. 221

Address

Jackson, MI 49202

Address

Telephone number

Fax number

E-mail address

38-6004845

Federal ID number

STATE'S CONTACT:

Pam Green

Name/Title

Resource Management Division

Division/Bureau/Office

P.O. Box 30241

Address

Lansing, MI 48909-7741

Address

517.241.1261

Telephone number

517.373.2040

Fax number

greenp3@michigan.gov

E-mail address

The individuals signing below certify by their signatures that they are authorized to sign this Contract on behalf of their agencies and that the parties will fulfill the terms of this Contract, including any attached appendices, as set forth herein.

FOR THE GRANTEE:

Signature

Date

Name/Title

FOR THE STATE:

Signature

Date

Liane J. Shekter Smith, P.E., Chief, Resource Management
Division

Name/Title

XXXI PROGRAM FUNDING

Program A - Noncommunity (Type II):

Index 33350

1. Water Supply Requirements –PCA 45851; Amount \$43,135.00
Funding Source: State Restricted
2. Operator Certification - PCA 45770; Amount \$656.00 is funded with Federal Funding. The Catalog of Federal Domestic Assistance (CFDA) title is "Operator Certification Expense Reimbursement Grant", and the CFDA number is 66.471. The Federal Grant Number is CT975861 and the grant is funded with Federal funds from the EPA awarded in 2002. By accepting this contract, the grantee agrees to comply with the requirements of the Safe Drinking Water Act, Sec. 1419(d) Amended 1996, PL 104-182 and the requirements found in the regulatory authority 40 CFR PART 31.
3. Capacity Development – PCA 45802; Amount \$900.00 is funded with Federal Funding. The Catalog of Federal Domestic Assistance (CFDA) title is "Cap Grant for the Drinking Water Revolving Fund", and the CFDA number is 66.468. The Federal Grant Number is FS97548707 and the grant is funded with Federal funds from the EPA awarded in 2005. By accepting this contract, the grantee agrees to comply with the requirements of the Safe Drinking Water Act, Sec. 1419(d) Amended 1996, PL 104-182 and the requirements found in the regulatory authority 40 CFR PART 31 & 35, subpart L.

Program B - Long-Term Monitoring:

Index 33350 PCA 30744; Amount \$3,600.00 Funding Source: State Restricted

Program C – Great Lakes Beach Monitoring:

Index 60749, PCA 42224, Amount \$0.00; is funded with Federal Funding. The Catalog of Federal Domestic Assistance (CFDA) title is "Beach Monitoring and Notification Program Grant", and the CFDA number is 66.472. The Federal Grant Number is CU00E259-01 and the grant is funded with Federal funds from the EPA awarded in 2007. By accepting this contract, the grantee agrees to comply with the requirements of the Beaches Environmental Assessment and Coastal Health Act of 2000, PL 106-284 and the requirements found in the regulatory authority 40 CFR PART 31.

Program D - Public Swimming Pool Requirements:

Index 33350 PCA 45745; Amount \$2,100.00 Funding Source: State Restricted

Program E - Septage Requirements:

Index 33350 PCA 45880, Amount \$800.00 Funding Source: State Restricted

Program H – Campground Requirements:

Index 33350 PCA 45750; Amount \$800 Funding Source: State Restricted



Jackson County

ADMINISTRATOR/CONTROLLER

Michael R. Overton, Administrator/Controller Adam J. Brown, Deputy Administrator

TO: Human Services Committee
Board of County Commissioners

FROM: Adam J. Brown
Deputy County Administrator

SUBJECT: Education Plan Endorsement

DATE: November 29, 2011

Motion Requested

Approve Resolution for Jackson County's Commitment to a Solid Educational Foundation

I. Background

- A. Jackson Citizens for Economic Growth (JCEG) has brought together members of the business community, governments, non-profits, and education community to discuss a unified support for education strategies. These meetings began in August and have continued monthly.
- B. State legislators Earl Poleski and Mike Shirkey believe that a sign of solidarity in the form of a resolution by all parties would send a strong statement to the state about Jackson's willingness to improve education. It was suggested that a unified movement such as this may be eligible for state funding if a specific plan can be developed.
- C. A resolution was presented to the schools for consideration. After consideration, the schools drafted a new resolution mapping the main components of an education plan to improve student achievement.
- D. JCEG's education team reviewed the superintendent's resolution and, with agreement from the superintendents present, made some changes to the resolution. The group of community members representing business, government, non-profit, and education collectively approved of the resolution. Each entity present was requested to seek approval from their respective governing body.

II. Current Situation

- A. The resolution before you today is the one approved by the group. The main components of the plan are:
 - 1. Technology Integration in Teaching and Learning

2. Early Childhood Development
3. Reading at Grade Level by the 4th Grade
4. Development of Curricular Linkages from High School to College
5. Parental and Family Involvement

- B. The team has assigned individuals as leaders of each of the main components and asked that they report back with specific objectives and measurable goals.

III. Analysis

A. Strategic Impact

1. Jackson County has facilitated meetings of education stakeholders as part of the County Strategic Plan for nearly four years and has made significant progress. The County Education Team has focused on math which is a curricular linkage from High School to College. The intent of the County Education Team was to pursue other areas of education following the math initiative.
2. This education plan adds depth to the county's education strategic plan goal in terms of objectives and in terms of participation. The plan is a cradle to career path for education. There appears to be significant support for the initiative.
3. JCEG has requested that the county assume leadership as the convener of this group. Commissioner Alexander, Board appointee to the County Education Team, and I have discussed this possibility with the Administrator/Controller. We plan to discuss this with the County Education Team at the next regularly scheduled meeting on December 6, 2011.

- B. **Financial Impact** – The County has appropriated resources to the education strategic goal in the past; however, there is no financial impact or commitment to approve this resolution at this time.

- C. **Legal Impact** – Does not apply.

- D. **Timing** – Our state legislators have cautioned that the possibility of funding specific initiatives from the state is extremely time sensitive. Our legislators have promised that they would recommend competitive programmatic funding on our behalf should Jackson be able to demonstrate a unified approach.

- IV. **Alternatives** – The alternative to working jointly with this group is to maintain our current tactics by continuing to participate in our monthly Education Team meetings. This has been an effective strategy and has demonstrated progress. We have members from the major educational institutions within the community and have recently added non-profit and business representatives. Without joining forces, however, we will not be able to dramatically increase the pace as may be possible with this opportunity.

V. Recommendation

The Deputy Administrator recommends the Board of County Commissioners approve the Resolution for Jackson County's Commitment to a Solid Educational Foundation.

Attachments:

Resolution – Jackson County's Commitment to a Solid Educational Foundation



Jackson County

Resolution (12-11.43)

Jackson County's Commitment to a Solid Educational Foundation

Whereas, Jackson County, in partnership with Jackson County School Districts, other governmental agencies, community agencies, higher education, and citizen groups, are committed to developing a unified plan to build a solid foundation for educational excellence for all students; and

Whereas, The main components of this plan are:

- Technology Integration in Teaching and Learning
 - (a) This plan will develop a sustainable method of making one-to-one technology a reality for all students.
 - (b) This plan will bring value to all parents by making affordable, high speed, broadband internet access available to all students, at all times, and in any location.
 - (c) This plan will develop multiple opportunities for on-line learning, recognizing the strength of hybrid models that mix on-line and direct contact with students.
- Early Childhood Development
 - (a) This plan will include the development of a sustainably funded, accredited program with universal access for all 4 year old students. This is a critical foundation piece in developing a county committed to educational excellence.
- Reading at Grade Level by the 4th Grade
 - (a) This plan will include the development of an intervention program that works to get all students reading at grade level by the 4th grade. Research proves that this is a major indicator of long-term success for students.

- Development of Curricular Linkages from High School to College
 - (a) This plan will include strategies that make students “math ready” for post secondary education and/or the workplace
 - (b) This plan will include communicating the importance of achieving high expectations in relevant coursework aligned to college and/or career goals.
 - (c) This plan will include the use of common assessment data to predict college/career readiness and implement interventions when necessary.
- Parental / Family Involvement
 - (a) Showing the necessity of parental/family involvement early on, and enhancing it through communicating the obvious value of technology connectivity, is critical to building this solid foundation and creating a cultural awareness of the importance of education to our community’s future.

Now Therefore, Be it Resolved, that Jackson County is committed to contributing to a collaborative development of this unified plan with the school districts, governmental agencies, State government representatives, community organizations, higher education organizations and citizen groups.

James E. Shotwell, Jr., Chairman
Jackson County Board of Commissioners
December 13, 2011



Jackson County

RESOLUTION (12-11.41) Authorizing Adoption of Plan Restatement

Whereas, Jackson County (hereinafter, the "Employer") established the Jackson County Deferred Compensation Plan (hereinafter, the "Plan"), effective 3/20/97 for the exclusive benefit of its employees and their beneficiaries.

Now, therefore be it resolved, that the Employer hereby amends and restates the Plan in the form of the Plan attached hereto; and

Resolved, further, that the appropriate officers of the Employer, or their delegates, are hereby authorized to execute the amendment and restatement of the Plan effective _____, _____."

I, _____, do hereby certify that the above and foregoing was adopted by the _____ on the _____ day of _____, _____.

James E. Shotwell, Jr., Chairman
Jackson County Board of Commissioners
December 13, 2011

WITNESS:

ADOPTION AGREEMENT
SECTION 457(b) DEFERRED COMPENSATION PLAN
(Governmental)

The undersigned employer hereby adopts or restates, as applicable, this Plan. This Plan shall comprise both (1) this Adoption Agreement and (2) the Basic Plan Document. Article and section references in this Adoption Agreement refer to articles and sections of the Basic Plan Document unless otherwise indicated.

Employer Name: Jackson County

Employer Address: 120 W. Michigan Ave.

Jackson, MI 49201

Plan Name: Jackson County Deferred Compensation Plan

1. Plan Effective Date. ("Effective Date.") (Check one.)

- ☐ This Plan is being established by the Employer as a new Plan, effective _____, _____.
☒ This Plan amends and restates the Plan previously established by the Employer and is effective
January 1, 2012. The Plan was originally established by the Employer effective March 20, 1997.

2. Eligible Employees. (Check one.)

- ☒ All Employees shall be eligible to participate.
☐ The Employer, in its sole discretion, shall determine each Plan Year which Employees shall be eligible to participate in the Plan.
☐ All Employees shall be eligible to participate except the following Employees (specify which Employees shall not be allowed to participate in the Plan):

3. Roth Contributions. (Check one.)

- ☒ Designated Roth Contributions are not permitted, and Section 4.10 shall not apply to this Plan.
☐ Participants may make Designated Roth Contributions (as described in Section 4.10) in lieu of or in addition to pre-tax Elective Deferral Contributions, effective _____, _____ (insert date not earlier than the later of January 1, 2011 or the date of the Employer's resolution adopting Designated Roth Contributions).

4. Employer Contributions. (Check one.) Note: Employer Contributions are combined with Elective Deferral Contributions and Designated Roth Contributions in applying the contribution limits described in Section 2.18.

- ☒ There shall be no Employer Contributions under this Plan.
☐ Discretionary Employer Contribution. The Employer may, in its absolute discretion, make an Employer Contribution to the Plan, and may determine, in its absolute discretion, how any such Employer Contribution shall be allocated among Plan Participants. This Discretionary Employer Contribution may be a matching or non-matching contribution.
☐ FICA Opt-out Contribution. As described in Section 4.11, the Employer shall make FICA Opt-out Contributions (contributions other than Elective Deferral Contributions or Designated Roth Contributions) on behalf of the following Employees in lieu of paying/withholding FICA taxes for such Employees and in the amounts indicated below (check applicable box and fill in blanks for required contribution percentages):
☐ All Employees
☐ Part-time, seasonal and temporary Employees only

- ☐ Other (indicate which Employees shall be eligible for the FICA Opt-out Contributions):

The required FICA Opt-out Contribution shall consist of the following types of contributions (which must total 7.5% or more of the Participant's Compensation):

- ☐ Employer Contribution = _____% of Compensation
- ☐ Mandatory Employee Contribution = _____% of Compensation
- ☐ Other: _____
- _____
- _____

5. Loans. (Check one.)

- ☐ Yes, loans are allowed and Article IX shall apply to this Plan.
- ☒ No, loans are not allowed and Article IX shall not apply to this Plan.

6. Unforeseeable Emergency Withdrawals. (Check one.)

- ☒ Yes. Withdrawals under Section 6.08 shall be available under this Plan. (Check one.)
- ☒ Withdrawals on account of an illness, accident or need to pay for the funeral expenses of the Participant's primary Beneficiary shall be available effective the later of (a) August 17, 2006, (b) the original effective date of the Plan or, if applicable, (c) January 1, 2012 (insert date that this option was first available, if such date was later than August 17, 2006).
- ☐ Withdrawals on account of an illness, accident or need to pay for funeral expenses of the Participant's primary Beneficiary shall not be available.
- ☐ No. Withdrawals under Section 6.08 shall not be available under this Plan.

7. Participant's Election to Receive In-Service Distribution. A Participant may elect to receive an in-service distribution of his account balance as described in Section 6.10. (Check one.)

- ☒ Yes, if the total amount payable to a Participant under the Plan does not exceed the dollar amount under Code Section 411(a)(11)(A) (currently \$5,000).
- ☐ No. Section 6.10 shall not apply to this Plan.

8. Distribution without Participant's Consent. Small accounts of certain inactive Participants may be distributed without the Participant's consent as described in Section 6.11. (Check one.)

- ☐ Yes, if the total amount payable to a Participant under the Plan does not exceed \$1,000. Such amount will be paid in cash to the Participant.
- ☒ No. Section 6.11 shall not apply to this Plan.

9. Distributions to Individuals in Uniformed Services. (Check one.)

- ☐ The Plan does not permit distributions to individuals who are deemed to have a Severance from Employment solely on account of their performing services in the uniformed services and Section 6.13 shall not apply to this Plan.
- ☒ Participants who are deemed to have a Severance from Employment on account of their performing services in the uniformed services for a period of 30 days or more may elect to receive a distribution of all or a portion of their Account (subject to the post-distribution restrictions described in Section 6.13).

10. In-plan Roth Conversions. (Check one.) (Note: Employer cannot allow in-plan Roth conversions unless it also elects to allow Designated Roth Contributions under Section 3, above, of this Adoption Agreement.)

- ☒ In-plan Roth conversions are not permitted, and Section 6.12 shall not apply to this Plan.
- ☐ Participants may convert certain pre-tax amounts to Roth contributions in an "in-plan" rollover/conversion described in Section 6.12, but only if such amounts are currently distributable under the terms of the Plan, effective _____, _____ (insert date not earlier than the later of January 1, 2011 or the date of the Employer's resolution adopting in-plan Roth conversions).

11. Deductions from Distributions to Eligible Retired Public Safety Officers. (Check one.)
- ☐ For distributions after December 31, 2006, an Eligible Retired Public Safety Officer may elect, pursuant to Section 6.14, to have up to \$3,000 of the distribution deducted and paid directly to the provider of an accident or health insurance plan or qualified long-term care insurance plan.
 - ☒ The Plan does not allow elections by Eligible Retired Public Safety Officers under Section 6.14.
12. Non-spousal Beneficiary Rollovers. As described in Section 8.03, non-spousal Beneficiary rollovers are allowed after December 31, 2006, unless elected otherwise below. (Note: Such distributions are required by law to be allowed after December 31, 2009.)
- ☒ Non-spousal Beneficiary rollovers are not allowed prior to January 1, 2010.
 - ☐ Non-spousal Beneficiary rollovers are allowed effective _____, _____ (insert date not earlier than January 1, 2007 and not later than December 31, 2009).
13. Required Minimum Distributions for 2009. (Check one of the boxes in each of subsections (a) and (b) below. If none of the boxes in a subsection is checked, the first option shall apply to the Plan.)
- (a) For purposes of 2009 required minimum distributions:
- ☒ **This option reflects VALIC standard operations during 2009.** The provisions of Section 6.05(a) apply (Required Minimum Distributions continue in accordance with the terms of the Plan for Participants or Beneficiaries receiving installment payments unless such Participant or Beneficiary elects otherwise, whereas Required Minimum Distributions are suspended for all other Participants and Beneficiaries).
 - ☐ The provisions of Section 6.05(b) apply (Required Minimum Distributions continue in accordance with the terms of the Plan for all Participants and Beneficiaries, unless otherwise elected by a Participant or Beneficiary).
 - ☐ The provisions of Section 6.05(c) apply (Required Minimum Distributions continue in accordance with the terms of the Plan for all Participants and Beneficiaries, but only Participants or Beneficiaries receiving installment payments may elect otherwise).
 - ☐ Other: _____

 - ☐ Not applicable (Plan established as a new Plan after 2009). (Do not complete subsection (b) below.)
- (b) For purposes of Section 6.05(d), the Plan will treat the following as eligible rollover distributions in 2009:
- ☒ **This option reflects VALIC standard operations during 2009.** A direct rollover option shall be offered only for distributions that would be eligible rollover distributions without regard to Code Section 401(a)(9)(H).
 - ☐ Eligible rollover distributions shall include 2009 Required Minimum Distributions and installment payments that include 2009 Required Minimum Distributions.
 - ☐ Eligible rollover distributions shall include 2009 Required Minimum Distributions, but only if paid with an additional amount that is an eligible rollover distribution without regard to Code Section 401(a)(9)(H).
14. Optional Benefit Accruals under HEART Act. (Check one.)
- ☐ The optional benefit accrual provisions described in Section 4.12 for individuals who die or become disabled while performing qualified military service shall not apply.
 - ☒ The optional benefit accrual provisions described in Section 4.12 for individuals who die or become disabled while performing qualified military service shall apply effective January 1, 2012 (insert date not earlier than first day of 2007 Plan Year).
15. Governing Law. This Plan shall be construed under the laws of the State/Commonwealth of Michigan (insert State/Commonwealth). This Plan shall be subject to any applicable State, county or local deferred compensation rules and regulations.

The Employer hereby causes this Adoption Agreement to be executed by its duly authorized representative on the date specified below.

Employer (Please Print): Jackson County

Employer's Signature: _____

Name (Please Print): _____

Title: _____ Date: _____

PARTICIPATION AGREEMENT
SECTION 457(b) DEFERRED COMPENSATION PLAN
(Governmental)

Complete this page *only if* more than one Employer will adopt this Section 457(b) Deferred Compensation Plan. Each Participating Employer must execute a separate Participation Agreement.

☒ Check here if not applicable and do not complete this page.

The undersigned governmental entity, by executing this Participation Agreement, elects to become a Participating Employer in the Section 457(b) eligible deferred compensation plan identified in the accompanying Adoption Agreement and below (the "Plan"), as if the Participating Employer were a signatory to the Adoption Agreement for the Plan. The Participating Employer accepts, and agrees to be bound by, all of the elections made by the signatory Employer in the Adoption Agreement for the Plan, except as otherwise provided in this Participation Agreement.

1. EFFECTIVE DATE. (Note: The Effective Date of the Participating Employer's adoption of the Plan cannot be earlier than the original effective date of the Plan, as adopted by the signatory Employer. If the Participating Employer is adopting the Plan as a restatement of an existing governmental Section 457(b) plan of the Participating Employer, the Effective Date of the Participating Employer's adoption of the Plan must not be earlier than the later of (i) the original effective date of the Participating Employer's existing Section 457(b) plan, (ii) the effective date of the most recent restatement of the Plan by the signatory Employer, or (iii) the first day of the Plan Year that includes the date the Participation Agreement is executed.)

The Effective Date of the Participating Employer's adoption of the Plan is: _____.

2. NEW PLAN/RESTATEMENT. The Participating Employer's adoption of this Plan constitutes: (Check one.)

- ☐ The adoption of a new governmental Section 457(b) plan by the Participating Employer.
- ☐ An amendment and restatement of a governmental Section 457(b) plan currently maintained by the Participating Employer identified as the _____ and having an original effective date of _____.

The Participating Employer hereby causes this Participation Agreement to be executed by its duly authorized representative on the date specified below.

Plan Name (Please Print): _____

Participating Employer Name (Please Print): _____

Participating Employer's Signature: _____

Name (Please Print): _____

Title: _____ Date: _____

Acceptance by the Signatory Employer of the Adoption Agreement.

Signatory Employer Name (Please Print): _____

Signatory Employer's Signature: _____

Name (Please Print): _____

Title: _____ Date: _____

BASIC PLAN DOCUMENT

SECTION 457 (b) DEFERRED COMPENSATION PLAN

(Governmental)

ARTICLE I. INTRODUCTION

This Plan is intended to be an eligible deferred compensation plan under Section 457 of the Internal Revenue Code of 1986, as amended. The primary purpose of this Plan is to attract and retain qualified personnel by permitting them to provide for benefits in the event of their retirement or death. Nothing contained in this Plan shall be deemed to constitute an employment agreement between any Participant and the Employer and nothing contained herein shall be deemed to give any Participant any right to be retained in the employ of the Employer.

ARTICLE II. DEFINITIONS

- 2.01 Account: The account maintained for each Participant reflecting the cumulative amount of each Participant's Deferred Compensation, including any income, gains, losses, or increases or decreases in market value attributable to the investment of the Participant's Deferred Compensation, and further reflecting any distributions to the Participant or the Beneficiary and any fees or expenses charged against the Participant's Deferred Compensation.
- 2.02 Adoption Agreement: The separate agreement which is executed by the Employer and sets forth the elective provisions of this Plan as specified by the Employer.
- 2.03 Annuity Contract: If selected by the Employer as an investment option, one or more group fixed, variable or combination fixed and variable annuity contracts issued by The Variable Annuity Life Insurance Company (VALIC) and approved for sale in the Employer's state, or by another insurance company qualified to do business in the Employer's state, which provide for periodic payments at regular intervals, whether for a period certain or during one or more lives, and which are non-transferable.
- 2.04 Beneficiary or Beneficiaries: The person or persons designated by the Participant in his Deferred Compensation Agreement who shall receive any benefits payable hereunder in the event of the Participant's death. If more than one designated Beneficiary survives the Participant, payments shall be made equally to the surviving Beneficiaries, unless otherwise provided in the Deferred Compensation Agreement. If no Beneficiary is designated in the Deferred Compensation Agreement or if no designated Beneficiary survives the Participant, then the estate of the Participant shall be the Beneficiary. However, a Participant may designate a contingent Beneficiary (or Beneficiaries) who shall become the primary Beneficiary (or Beneficiaries) under this Plan in the event that no primary Beneficiary survives the Participant.
- 2.05 Code: The Internal Revenue Code of 1986, as amended, and regulations thereunder.
- 2.06 Compensation: The amount of compensation that would be payable to a Participant by the Employer if no Deferred Compensation Agreement were in effect to defer compensation under this Plan. The term Compensation includes amounts that are excludable from an Employee's gross income and that are contributed by the Employer at the Employee's election to a cafeteria plan, qualified transportation fringe benefit plan, a Section 401(k) arrangement, a SARSEP, a Section 403(b) arrangement, a SIMPLE plan or another Section 457(b) plan of the Employer. For years beginning after 2008, Compensation shall include "differential wage payments," as that term is defined in Section 2.17 (Includible Compensation).
- 2.07 Deferred Compensation: The amount of Compensation otherwise payable to the Participant that the Participant elects to defer hereunder (as either pre-tax Elective Deferral Contributions or after-tax Designated Roth Contributions), any amount credited to a Participant's Account by reason of a transfer under Section 8.01, or any other amount that the Employer agrees to credit to a Participant's Account (as an Employer Contribution) and that does not exceed the Maximum Limitation.
- 2.08 Deferred Compensation Agreement: An agreement entered into between a Participant and the Employer and any amendments or modifications thereof, which agreement shall fix the amount of pre-tax Elective Deferral and/or after-tax Designated Roth Contributions, if applicable, that the Participant elects to defer; specify the Participant's investment selection with respect to his Deferred Compensation; designate the Participant's Beneficiary or Beneficiaries; and incorporate the terms, conditions, and provisions of this Plan by reference.
- 2.09 Designated Roth Contribution: The amount of a Participant's Compensation that he elects to defer to the Plan (as Deferred Compensation) on an after-tax basis.

- 2.10 Elective Deferral Contribution: The amount of a Participant's Compensation that he elects to defer to the Plan (as Deferred Compensation) on a pre-tax basis.
- 2.11 Eligible Retirement Plan: A plan described in Code Section 402(c)(8)(B) to which an Eligible Rollover Distribution may be transferred pursuant to Code Section 457(e)(16).
- 2.12 Eligible Rollover Distribution: A qualifying distribution to a Participant, or to a spousal Beneficiary of a deceased Participant, that is described in Code Section 402(c)(4).
- 2.13 Employee: Any individual, whether appointed, elected or under contract, providing services for the Employer for which compensation is paid. For years beginning after December 31, 2008, the term Employee also includes an individual receiving "differential wage payments," as that term is defined in Section 2.17 (Includible Compensation), from the Employer.
- 2.14 Eligible Employee: An Employee who, based on the Employer's elections in the Adoption Agreement, is eligible to participate in the Plan.
- 2.15 Employer: The entity identified in the Adoption Agreement, which entity is a State, political subdivision of a State, or an agency or instrumentality of a State or political subdivision of a State.
- 2.16 Employer Contribution: The amount (if any) that the Employer contributes to the Plan (as Deferred Compensation) that does not reduce (on a pre-tax or an after-tax basis) the Participant's Compensation for the Plan Year.
- 2.17 Includible Compensation: For a taxable year, the Participant's compensation, as defined in Code Section 415(c)(3), for services performed for the Employer. For years beginning after 2008, Includible Compensation shall include "differential wage payments," as defined in Code Section 3401(h)(2) (a payment by the Employer to an individual with respect to any period during which the individual is performing service in the uniformed services while on active duty for a period of more than 30 days, and which payment represents all or a portion of the wages the individual would have received from the Employer if the individual were performing service for the Employer). The amount of Includible Compensation shall be determined without regard to any community property laws.
- 2.18 Maximum Limitation: The maximum amount that may be deferred under this Plan (other than rollover amounts described in Section 8.02) for the taxable year of a Participant. Such amount shall be either the Normal Limitation or Catch-Up Limitation, whichever is applicable.
- (a) Normal Limitation: The maximum amount deferred shall not exceed the lesser of the Applicable Dollar Amount (as described in Section 2.18(c) below) or 100% of the Participant's Includible Compensation, as adjusted by Section 2.18(d) below. Notwithstanding the preceding provisions of this paragraph, for calendar years prior to 2002, the maximum amount deferred shall not exceed such limit or limits in effect for the applicable year pursuant to Code Section 457.
- (b) Catch-Up Limitation: For each one of the last three (3) taxable years of a Participant ending before the Participant's attainment of Normal Retirement Age, the maximum amount deferred for each such year shall be the lesser of:
- (1) twice the Applicable Dollar Amount (as described in Section 2.18(c) below); or
 - (2) the sum of the Normal Limitation, plus that portion of the Normal Limitation not used in each of the prior taxable years of the Participant commencing after 1978 in which (i) the Participant was eligible to participate in this Plan or another eligible plan of the Employer, and (ii) compensation deferred under this Plan (or such other plan) was subject to the deferral limitations set forth in this section.
- A Participant may utilize the Catch-Up Limitation only if the Participant has not previously utilized it with respect to a different Normal Retirement Age under this Plan or any other plan.
- For years prior to 2002, the limit under this paragraph (b) for any year shall not exceed \$15,000.
- (c) Applicable Dollar Amount: For contributions in 2006 and subsequent years, the Applicable Dollar Amount shall be \$15,000 as adjusted for cost-of-living increases in accordance with Code Section 457(e)(15). The Applicable Dollar Amount for the 2011 calendar year is \$16,500 and for the 2012 calendar year is \$17,000.
- (d) Coordination with Other Plans: For contribution years prior to 2002, the amount excludible from a Participant's gross income for any taxable year under this Plan or any other plan under Code Section 457(b) shall not exceed \$7,500 (as adjusted for cost-of-living increases in accordance with Code Section 457(e)(15)) or such greater amount allowed under paragraph (b) of this section, less any amount excluded from gross income under Code Section 403(b), 402(e)(3), or 402(h)(1)(B) or (k), or any amount with respect to which a deduction is allowable by reason of a contribution to an organization under Code Section 501(c)(18).

- (e) Age-Based Catch-Up Contributions: In addition to any other limit set forth in this section, a Participant who will attain age 50 in the calendar year may contribute an additional \$5,000 as adjusted for cost-of-living increases in accordance with Code Section 414(v)(2)(C). The Age-Based Catch-Up limitation for the 2011 and 2012 calendar years is \$5,500.
- (f) Coordination of Catch-Up Contributions: A Participant may not utilize both the Catch-Up Limitation and the Age-Based Catch-Up Contribution in the same year. The Age-Based Catch-Up Contribution shall not apply for any taxable year for which a higher Catch-Up Limitation applies.
- (g) Excess Deferrals: Any amount deferred in excess of the Maximum Limitation or Age-Based Catch-Up Contribution shall be distributed to the Participant, with allocable net income, as soon as administratively practicable after the Plan determines that the amount is an excess deferral. An excess deferral as a result of a failure to comply with the individual limitation under Treas. Reg. Section 1.457-5 for a taxable year may be distributed to the Participant, with allocable net income, as soon as administratively practicable after the Plan determines that the amount is an excess deferral.

2.19 Normal Retirement Age: The age that determines the period during which a Participant may utilize the Catch-Up Limitation of Section 2.18(b) hereunder. A Participant's Normal Retirement Age shall be age 70½, unless the Participant has elected an alternative Normal Retirement Age by written instrument delivered to the Employer prior to Severance from Employment.

A Participant's alternative Normal Retirement Age may not be earlier than the earliest date that the Participant shall become eligible to retire and receive unreduced retirement benefits under the Employer's defined benefit plan or money purchase plan covering that Participant and may not be later than the calendar year in which the Participant attains age 70½. If the Participant will not be eligible to receive benefits under a defined benefit plan or money purchase plan maintained by the Employer, the Participant's Normal Retirement Age may not be earlier than attainment of age 65 and may not be later than the calendar year in which the Participant attains age 70½.

If the Participant is a qualified police officer or firefighter as defined under Code Section 415(b)(2)(H)(ii)(I), then such qualified police officer or firefighter may designate an alternative Normal Retirement Age that is between age 40 and age 70½.

Once a Participant has to any extent utilized the Catch-Up Limitation of Section 2.18(b), his Normal Retirement Age may not be changed.

2.20 Participant: Any Eligible Employee who has enrolled in this Plan pursuant to the requirements of Article V or who has previously deferred compensation under this Plan and who has not received a distribution of his entire benefit under the Plan.

2.21 Plan Year: The 12-month period commencing each January 1st and ending on the following December 31st.

2.22 Severance from Employment: Termination of the Participant's employment relationship with the Employer. For years after 2008, solely for purposes of the withdrawal restrictions of Code Section 457(d)(1)(A), an individual shall be treated as having been severed from employment during any period the individual is performing service in the uniformed services, as described in Code Section 3401(h)(2)(A). For years prior to 2002, references in this Plan to Severance from Employment shall mean severance of the Participant's employment with the Employer, within the meaning of Code Section 402(e)(4)(D)(i)(III), rather than termination of the Participant's employment relationship with the Employer.

2.23 Service Provider: The Variable Annuity Life Insurance Company (VALIC), VALIC Retirement Services Company or such other entity as the Employer designates to perform administrative services under this Plan.

ARTICLE III. ADMINISTRATION

3.01 Plan Administrator. This Plan shall be administered by the Employer or one or more persons designated by the Employer. The Plan Administrator, if other than the Employer, shall act as the agent of the Employer in all matters concerning the administration of this Plan. The Plan Administrator shall have full power to adopt, amend, and revoke such rules and regulations consistent with and as may be necessary to implement, operate and maintain this Plan, to enter into contracts on behalf of the Employer under this Plan, and to make discretionary decisions affecting the rights or benefits of Participants under Section 6.08 of this Plan.

3.02 Employee with Administrative Responsibilities. Any Employee who is charged with administrative responsibilities hereunder may participate in the Plan under the same terms and conditions as apply to other Employees. However, he

shall not have the power to participate in any discretionary action taken with respect to his participation under Section 6.08 of this Plan.

- 3.03 Administrative Services. The Employer may enter into an agreement with a Service Provider to provide nondiscretionary administrative services under this Plan for the convenience of the Employer, including, but not limited to, the enrollment of Employees as Participants, the maintenance of Accounts and other records, the making of periodic reports to Participants, and the disbursement of benefits to Participants.

ARTICLE IV. PARTICIPATION IN THE PLAN

- 4.01 Participant. An Eligible Employee becomes a Participant when he has executed and entered into a Deferred Compensation Agreement with the Employer. An Eligible Employee is not precluded from becoming a Participant by reason of having received a pre-1997 cash-out distribution (upon separation from service) of \$3,500 or less from a Code Section 457(b) plan.
- 4.02 Enrollment in the Plan. An Eligible Employee may elect to defer Compensation for a calendar month by entering into a Deferred Compensation Agreement before the first day of the month in which the Compensation is paid or made available. A new Eligible Employee may defer Compensation payable in the calendar month which includes the first day of employment by entering into a Deferred Compensation Agreement on or before the first day of employment.
- 4.03 Minimum Deferral Amount. At the time of entering into or amending a Deferred Compensation Agreement hereunder, an Eligible Employee or Participant must agree to defer a minimum periodic amount as specified by the Plan Administrator.
- 4.04 Change in Amount of Deferred Compensation or Beneficiary. A Participant may not amend or modify an executed Deferred Compensation Agreement to change the amount of Deferred Compensation except with respect to compensation to be earned in the subsequent calendar month and provided that notice is given prior to the beginning of the month for which such change is to be effective. The Employer may suspend a Participant's Elective Deferral Contributions and/or Designated Roth Contributions for up to 6 months in the event a Participant takes a hardship distribution from the Employer's Section 401(k) plan or Section 403(b) arrangement if required under the terms of such plan or arrangement. A Participant may change the Beneficiary designated in his Deferred Compensation Agreement at any time by giving written notice to the Plan Administrator.
- 4.05 Revocation of Deferred Compensation Agreement. A Participant may revoke his Deferred Compensation Agreement and his Compensation shall be restored in the subsequent calendar month, by giving notice to the Employer prior to the beginning of the month for which such revocation is to be effective.
- 4.06 New Deferred Compensation Agreement Upon Return to Service or After Revocation. A Participant who returns to active service with the Employer after a Severance from Employment, or who has revoked his Deferred Compensation Agreement under Section 4.05, may again become an active Participant by executing a new Deferred Compensation Agreement with the Employer prior to the beginning of the calendar month for which it is to be effective.
- 4.07 Leave of Absence; Other Absences. Compensation may continue to be deferred under this Plan with respect to a Participant who is on an approved leave of absence from the Employer with Compensation, and all of the rules of this Article shall apply with respect to making, amending or revoking any Deferred Compensation Agreement for such a Participant.
- 4.08 Deferrals of Sick, Vacation, and Back Pay. Subject to approval of the Employer, an Eligible Employee or Participant who has not had a Severance from Employment may elect to defer accumulated sick pay, accumulated vacation pay, and back pay under this Plan in accordance with the requirements of Code Section 457(b). These amounts may be deferred for any calendar month only if an agreement providing for the deferral is entered into before the beginning of the month in which the amounts would otherwise be paid or made available and the Participant is an Employee on the date the amounts would otherwise be paid or made available.
- 4.09 Deferrals of Amounts Paid After Severance from Employment. Subject to the approval of the Employer:
- (a) An Eligible Employee or Participant may elect to defer certain amounts that are paid after Severance from Employment, but only if such amounts are
 - (1) paid by the later of 2½ months after Severance from Employment or the end of the calendar year that includes the date of Severance from Employment, and
 - (2) one of the following types of compensation:

- (i) regular compensation for services rendered by the Eligible Employee or Participant (including base pay, overtime, shift differential, commission, bonus or other similar pay), so long as these amounts would have been paid to the Eligible Employee or Participant prior to termination of employment if the Eligible Employee or Participant had not had a Severance from Employment; or
 - (ii) payments for accrued but unused sick, vacation or other leave, but only if the Eligible Employee or Participant would have been able to use such leave if employment had continued.
 - (b) An Eligible Employee or Participant may also elect to defer amounts paid to the Eligible Employee or Participant during periods when the Eligible Employee or Participant is not performing services for the Employer by reason of qualified military service (as that term is used in Code Section 414(u)(1)), but only to the extent those payments do not exceed the amount the Eligible Employee or Participant would have received if the Eligible Employee or Participant had continued to perform services for the Employer rather than entering qualified military service.
 - (c) An Eligible Employee or Participant may also elect to defer amounts paid to the Eligible Employee or Participant during a period when the Eligible Employee or Participant is not performing services for the Employer because the Eligible Employee or Participant is permanently and totally disabled (as that term is defined in Code Section 22(e)(3)), so long as either:
 - (1) the Eligible Employee or Participant was not a highly compensated employee (as defined in Code Section 414(q)) immediately before becoming permanently and totally disabled, or
 - (2) the plan under which the disability payments are made provides for payments to all Eligible Employees or Participants who are permanently and totally disabled for a fixed or determined period.
- 4.10 Designated Roth Contributions. If elected by the Employer in the Adoption Agreement, the Participant may designate that all or a portion of his/her elective contributions to the Plan be treated as after-tax Roth contributions (referred to herein as "Designated Roth Contributions"). Such designation must be made before the date upon which the amounts designated would otherwise have been payable to the Participant (but for the election to defer), and such designation must be irrevocable on and after that date. Designated Roth Contributions (and the earnings thereon) shall be accounted for separately from all other contributions to the Plan (including rollovers of Roth contributions from other plans and in-plan Roth conversions) and the earnings on those contributions. If a Participant takes a distribution of less than 100% of his Account (including an In-Service Distribution or an Unforeseeable Emergency Withdrawal), the Participant may designate whether such distribution shall be made from the Participant's pre-tax Elective Deferral Contributions or after-tax Designated Roth Contributions.
- 4.11 Employer Contributions. If elected by the Employer in the Adoption Agreement, the Employer may/shall make contributions (that are not part of the Participant's Compensation) to the Plan as additional Deferred Compensation. Employer contributions may, but need not, be accounted for separately from Employee pre-tax Elective Deferral Contributions, but shall be accounted for separately from Designated Roth Contributions, amounts converted to Roth contributions through an in-plan Roth conversion, and rollover contributions (whether from a non-Roth account or a designated Roth account). If the Employer elects in the Adoption Agreement to make contributions in lieu of withholding/paying FICA taxes (hereinafter referred to as "FICA Opt-out Contributions") for some or all Participants for a given pay period, such contributions must total at least 7.5% of the Participant's Compensation for the pay period, and must be 100% vested at all times. If the Employer requires Participants to make mandatory salary reduction (i.e., pre-tax) contributions to the Plan as a condition of employment (hereinafter referred to as "Employee Mandatory Contributions"), such contributions shall be treated as Employer Contributions for all purposes under this Plan (including the 7.5% of Compensation requirement for FICA Opt-out Contributions).
- 4.12 Compliance with HEART Act. In the case of a death occurring on or after January 1, 2007, if a Participant dies while performing qualified military service (as defined in Code Section 414(u)), the Participant's Beneficiary is entitled to any additional benefits (other than benefit accruals relating to the period of qualified military service), if any, provided under the Plan as if the Participant had resumed employment and then terminated employment on account of death. If (and only if) the Employer elects in the Adoption Agreement, then effective as of the date elected in the Adoption Agreement, the Plan shall treat an individual who dies or becomes disabled (as defined in Code Section 72(m)(7)) while performing qualified military service with respect to the Employer as if the individual had resumed employment in accordance with the individual's reemployment rights under USERRA, on the day preceding death or disability (as the case may be) and terminated employment on the actual date of death or disability. The Plan will determine the amount of Elective Deferral Contributions (or Designated Roth Contributions) of an individual treated as employed under this section for purposes of applying Code Section 414(u)(8)(C) on the basis of the individual's average actual Elective Deferral Contributions (or Designated Roth Contributions) for the lesser of (i) the 12-month period of service

with the Employer immediately prior to the qualified military service or (ii) the actual length of continuous service with the Employer.

ARTICLE V. INVESTMENT OF DEFERRED COMPENSATION

- 5.01 Annuity Contracts and Other Plan Investments. For the purposes of satisfying its obligation to provide benefits under this Plan, the Employer shall invest the amount of compensation deferred by each Participant in Annuity Contracts and other Plan investments as specified in the Participants' Deferred Compensation Agreements. Amounts deferred under this Plan must be transferred to a trust, custodial account or annuity contract described in Section 5.02 within a period that is not longer than is reasonable for the proper administration of the Participant Accounts. Responsibility for the selection of investment alternatives for Plan assets shall be retained by the Employer, and the Employer shall have the right to modify the selection of investment alternatives from time to time. However, Participants and Beneficiaries may allocate amounts held in their Accounts or otherwise credited for their benefit under the Plan among the investment alternatives selected by the Employer, and the Employer shall cause such amounts to be so allocated within a reasonable time after the receipt of Participant instructions, or may instruct the issuer, trustee, or custodian to accept such allocation instructions directly from Participants and Beneficiaries as representatives of the Employer.
- 5.02 Exclusive Benefit. Notwithstanding any provision of the Plan to the contrary, all amounts held under the Plan, including amounts deferred and earnings or other accumulations attributable thereto, shall be held for the exclusive benefit of Plan Participants and Beneficiaries (i) in annuity contracts or (ii) in trust or in one or more custodial accounts pursuant to one or more separate written instruments. Any such annuity contract, trust, or custodial account must satisfy the requirements of Code Section 457(g)(1). The annuity contract, trust or custodial account must make it impossible, prior to the satisfaction of all liabilities with respect to Participants and their Beneficiaries, for any part of the assets and income of the annuity contract, trust or custodial account to be used for, or diverted to, purposes other than for the exclusive benefit of Participants and their Beneficiaries. For purposes of this section, the terms Participant and Beneficiary shall also include contingent beneficiaries and/or spouses, former spouses, or children of Participants for whose benefit amounts are being held under the Plan pursuant to the terms of a domestic relations order which has been recognized under the terms of the Plan. Any discretionary authority reserved to the Employer (or to any administrator or administrative committee) under the Plan or under any investment held under the Plan, to the extent the exercise thereof would otherwise be inconsistent with this section, shall be exercised for the exclusive benefit of Plan Participants and Beneficiaries. Any issuer of an annuity contract or trustee or custodian of other investments held under the Plan shall have no authority to pay any amounts from such Plan investments to any creditor of the Employer, and shall have no duty to inquire into the validity of any request by the Employer or by an administrator or administrative committee for distribution of amounts for the benefit of a Participant or a Beneficiary under the Plan.
- 5.03 Benefits Based on Participant's Account Value. The benefits paid to a Participant or Beneficiary pursuant to Article VI of this Plan shall be based upon the value of the Participant's Account. In no event shall the Employer's liability to pay benefits exceed the value of the Participant's Account, and the Employer shall not be liable for losses arising from depreciation or other decline in the value of any investments acquired under this Plan.
- 5.04 Periodic Reports. Each Participant shall receive periodic reports, not less frequently than annually, showing the then-current value of his Account.
- 5.05 Employer-Directed Accounts. Notwithstanding any provision of the Plan to the contrary, the Employer shall direct the issuer, trustee or custodian with respect to the investment of any contributions that are forwarded to the issuer, trustee or custodian prior to the date on which the Participant or Beneficiary completes the necessary paperwork with the issuer, trustee or custodian (or takes such other action or actions as may be necessary) to direct the investment of such amounts. This direction shall be effective only until such time as the Participant or Beneficiary exercises his right to direct the investment of such amounts in accordance with the terms of the Plan.

ARTICLE VI. BENEFITS

- 6.01 Distribution of Benefits. Except as otherwise provided in this Article, a Participant's Account shall become distributable upon a Participant's attainment of age 70½ or Severance from Employment. If the Participant has had a Severance from Employment, the distribution of a Participant's Account shall commence no later than April 1st of the calendar year following the year of the Participant's attainment of age 70½. Distributions shall be made in accordance with one of the payment options described in Section 6.03.
- 6.02 Distribution Procedures. The Employer may from time to time establish procedures for Participant distribution elections, provided that such procedures are not inconsistent with the requirements of Section 6.01.

6.03 Payment Options. A Participant (or a Beneficiary as provided in Sections 6.06 or 6.07) may elect to have the value of the Participant's Account distributed in accordance with one of the following payment options provided that such option is available under the investment and consistent with the requirements set forth in Section 6.04:

- (a) life annuity;
- (b) life annuity with 60, 120, or 180 monthly payments guaranteed;
- (c) unit refund life annuity;
- (d) joint and last survivor annuity (spouse only);
- (e) lump sum;
- (f) term certain annuity with 36, 48, 60, 72, 84, 96, 108, 120, 132, 144, 156, 168 or 180 monthly payments guaranteed;
- (g) withdrawals for a specified number of years;
- (h) withdrawals of a specified amount; or
- (i) any other method of payment agreed upon between Participant and Employer and accepted by the investment provider or Service Provider.

If a Participant fails to elect a payment option, any required payments shall be made under a payment option designated by the Employer.

Notwithstanding the options above, any option that involves a life contingency (or a joint life contingency) shall only be available under an Annuity Contract offered or obtained under the terms of the Plan.

6.04 Required Minimum Distributions.

- (a) No payment option may be selected by the Participant (or a Beneficiary) unless it satisfies the requirements of Code Section 401(a)(9) and any additional Code limitations applicable to the Plan. The provisions of this section shall apply for purposes of determining required minimum distributions for calendar years beginning with the 2003 calendar year. The requirements of this section shall take precedence over any inconsistent provisions of the Plan. All distributions required under this section shall be determined and made in accordance with the regulations under Code Section 401(a)(9). Notwithstanding the other provisions of this section, distributions may be made under a designation made before January 1, 1984, in accordance with Section 242(b)(2) of the Tax Equity and Fiscal Responsibility Act (TEFRA) and the provisions of the Plan that relate to Section 242(b)(2) of TEFRA.
- (b) The Participant's entire interest shall be distributed, or begin to be distributed, to the Participant no later than the Participant's required beginning date. If the Participant dies before distributions begin, the Participant's entire interest shall be distributed, or begin to be distributed, no later than as follows:
 - (1) If the Participant's surviving spouse is the Participant's sole designated Beneficiary, then unless the surviving spouse elects to apply the 5-year rule (pursuant to subsection (f), below), distributions to the surviving spouse shall begin by December 31st of the calendar year immediately following the calendar year in which the Participant died, or by December 31st of the calendar year in which the Participant would have attained age 70½, if later.
 - (2) If the Participant's surviving spouse is not the Participant's sole designated Beneficiary, then unless the designated Beneficiary elects to apply the 5-year rule (pursuant to subsection (f), below), distributions to the designated Beneficiary shall begin by December 31st of the calendar year immediately following the calendar year in which the Participant died.
 - (3) If there is no designated Beneficiary as of September 30th of the year following the year of the Participant's death, the Participant's entire interest shall be distributed by December 31st of the calendar year containing the fifth anniversary of the Participant's death.
 - (4) If the Participant's surviving spouse is the Participant's sole designated Beneficiary and the surviving spouse dies after the Participant but before distributions to the surviving spouse begin, this subsection (b), other than paragraph (b)(1), shall apply as if the surviving spouse were the Participant.

For purposes of this subsection (b) and subsection (d), unless paragraph (b)(4) applies, distributions are considered to begin on the Participant's required beginning date. If paragraph (b)(4) applies, distributions are considered to begin on the date distributions are required to begin to the surviving spouse under paragraph

(b)(1). If distributions under an annuity purchased from an insurance company irrevocably commence to the Participant before the Participant's required beginning date (or to the Participant's surviving spouse before the date distributions are required to begin to the surviving spouse under paragraph (b)(1)), the date distributions are considered to begin is the date distributions actually commence.

Unless the Participant's interest is distributed in the form of an annuity purchased from an insurance company or in a single sum on or before the required beginning date, as of the first distribution calendar year distributions shall be made in accordance with subsections(c) and (d) of this section. If the Participant's interest is distributed in the form of an annuity purchased from an insurance company, distributions thereunder shall be made in accordance with the requirements of Code Section 401(a)(9).

- (c) During the Participant's lifetime, the minimum amount that shall be distributed for each distribution calendar year is the lesser of:
- (1) the quotient obtained by dividing the Participant's account balance by the distribution period in the Uniform Lifetime Table set forth in Section 1.401(a)(9)-9 of the regulations, using the Participant's age as of the Participant's birthday in the distribution calendar year; or
 - (2) if the Participant's sole designated Beneficiary for the distribution calendar year is the Participant's spouse, the quotient obtained by dividing the Participant's account balance by the number in the Joint and Last Survivor Table set forth in Section 1.401(a)(9)-9 of the regulations, using the Participant's and spouse's attained ages as of the Participant's and spouse's birthdays in the distribution calendar year.

Required minimum distributions shall be determined under this subsection (c) beginning with the first distribution calendar year and up to and including the distribution calendar year that includes the Participant's date of death.

- (d) (1) If the Participant dies on or after the date distributions begin and there is a designated Beneficiary, the minimum amount that shall be distributed for each distribution calendar year after the year of the Participant's death is the quotient obtained by dividing the Participant's account balance by the longer of the remaining life expectancy of the Participant or the remaining life expectancy of the Participant's designated Beneficiary, determined as follows:
- (a) The Participant's remaining life expectancy is calculated using the age of the Participant in the year of death, reduced by one for each subsequent year.
 - (b) If the Participant's surviving spouse is the Participant's sole designated Beneficiary, the remaining life expectancy of the surviving spouse is calculated for each distribution calendar year after the year of the Participant's death using the surviving spouse's age as of the spouse's birthday in that year. For distribution calendar years after the year of the surviving spouse's death, the remaining life expectancy of the surviving spouse is calculated using the age of the surviving spouse as of the spouse's birthday in the calendar year of the spouse's death, reduced by one for each subsequent calendar year.
 - (c) If the Participant's surviving spouse is not the Participant's sole designated Beneficiary, the designated Beneficiary's remaining life expectancy is calculated using the age of the Beneficiary in the year following the year of the Participant's death, reduced by one for each subsequent year.
- (2) If the Participant dies on or after the date distributions begin and there is no designated Beneficiary as of September 30th of the year after the year of the Participant's death, the minimum amount that shall be distributed for each distribution calendar year after the year of the Participant's death is the quotient obtained by dividing the Participant's account balance by the Participant's remaining life expectancy calculated using the age of the Participant in the year of death, reduced by one for each subsequent year.
- (3) Except as otherwise elected (pursuant to subsection (f), below), if the Participant dies before the date distributions begin and there is a designated Beneficiary, the minimum amount that shall be distributed for each distribution calendar year after the year of the Participant's death is the quotient obtained by dividing the Participant's account balance by the remaining life expectancy of the Participant's designated Beneficiary, determined as provided in paragraphs (1) and (2), above.
- (4) If the Participant dies before the date distributions begin and there is no designated Beneficiary as of September 30th of the year following the year of the Participant's death, distribution of the Participant's entire interest shall be completed by December 31st of the calendar year containing the fifth anniversary of the Participant's death.

- (5) If the Participant dies before the date distributions begin, the Participant's surviving spouse is the Participant's sole designated Beneficiary, and the surviving spouse dies before distributions are required to begin to the surviving spouse under paragraph (b)(1), this subsection (d) shall apply as if the surviving spouse were the Participant.
- (e) Definitions.
- (1) "Designated Beneficiary" means the individual who is designated as the Beneficiary under Section 2.04 of the Plan and is the designated Beneficiary under Code Section 401(a)(9) and Section 1.401(a)(9)-1, Q&A-4, of the regulations.
- (2) "Distribution calendar year" means a calendar year for which a minimum distribution is required. For distributions beginning before the Participant's death, the first distribution calendar year is the calendar year immediately preceding the calendar year that contains the Participant's required beginning date. For distributions beginning after the Participant's death, the first distribution calendar year is the calendar year in which distributions are required to begin under subsection (b). The required minimum distribution for the Participant's first distribution calendar year shall be made on or before the Participant's required beginning date. The required minimum distribution for other distribution calendar years, including the required minimum distribution for the distribution calendar year in which the Participant's required beginning date occurs, shall be made on or before December 31st of that distribution calendar year.
- (3) "Life expectancy" means life expectancy as computed by use of the Single Life Table in Section 1.401(a)(9)-9 of the regulations.
- (4) "Participant's account balance" means the account balance as of the last valuation date in the calendar year immediately preceding the distribution calendar year (valuation calendar year) increased by the amount of any contributions made and allocated or forfeitures allocated to the account balance as of dates in the valuation calendar year after the valuation date and decreased by distributions made in the valuation calendar year after the valuation date. The account balance for the valuation calendar year includes any amounts rolled over or transferred to the Plan either in the valuation calendar year or in the distribution calendar year if distributed or transferred in the valuation calendar year.
- (5) "Required beginning date" means April 1st of the calendar year following the later of:
- (a) the calendar year in which the Participant attains age 70½; or
 - (b) the calendar year in which the Participant retires.
- (f) Participants or Beneficiaries may elect, on an individual basis, whether the 5-year rule or the life expectancy rule in subsections (b) and (d) applies to distributions after the death of a Participant who has a designated Beneficiary. The election must be made no later than the earlier of September 30th of the calendar year in which distribution would be required to begin under subsection (b), or by September 30th of the calendar year which contains the fifth anniversary of the Participant's (or, if applicable, the surviving spouse's) death. If neither the Participant nor the Beneficiary makes an election under this paragraph, distributions shall be made in accordance with subsections (b) and (d).

6.05 2009 Required Minimum Distributions ("RMDs").

- (a) Continuation of RMDs for Participants Receiving Installment Payments Unless Otherwise Elected by the Participant: Suspension of RMDs for All Other Participants. This paragraph applies if elected by the Employer in the Adoption Agreement or if no election is made by the Employer in the Adoption Agreement. Notwithstanding the provisions of Code Section 401(a)(9)(H), a Participant or Beneficiary who would have been required to receive required minimum distributions for 2009 but for the enactment of Code Section 401(a)(9)(H) ("2009 RMDs"), and who would have satisfied that requirement by receiving distributions that are one or more payments in a series of installments (that include 2009 RMDs), will continue to receive those distributions for 2009 unless the Participant or Beneficiary chooses not to receive such distributions. Participants and Beneficiaries described in the preceding sentence will be given the opportunity to elect not to receive the distributions that include 2009 RMDs. For all other Participants and Beneficiaries, the requirement to receive the 2009 RMD shall be suspended in accordance with Code Section 401(a)(9)(H).
- (b) Continuation of RMDs for All Participants Unless Otherwise Elected by the Participant. This paragraph applies if elected by the Employer in the Adoption Agreement. Notwithstanding the provisions of Code Section 401(a)(9)(H), a Participant or Beneficiary who would have been required to receive required minimum distributions for 2009 but for the enactment of Code Section 401(a)(9)(H) ("2009 RMDs"), and who would have satisfied that

requirement by receiving distributions that are either (1) equal to the 2009 RMDs or (2) one or more payments in a series of installments (that include 2009 RMDs), will receive those distributions for 2009 unless the Participant or Beneficiary chooses not to receive such distributions. Participants and Beneficiaries described in the preceding sentence will be given the opportunity to elect to stop receiving the distributions described in the preceding sentence.

- (c) Continuation of RMDs for All Participants Unless Otherwise Elected by Participants Receiving Installment Distributions. This paragraph applies if elected by the Employer in the Adoption Agreement. Notwithstanding the provisions of Code Section 401(a)(9)(H), a Participant or Beneficiary who would have been required to receive required minimum distributions for 2009 but for the enactment of Code Section 401(a)(9)(H) ("2009 RMDs"), and who would have satisfied that requirement by receiving distributions that are either (1) equal to the 2009 RMDs or (2) one or more payments in a series of installments (that include the 2009 RMDs), will receive those distributions for 2009. However, Participants and Beneficiaries receiving installments will be given the opportunity to elect not to receive the distributions that include 2009 RMDs.
 - (d) Direct Rollovers. Notwithstanding the provisions of the Plan relating to required minimum distributions under Code Section 401(a)(9), and solely for purposes of applying the direct rollover provisions of the Plan, certain additional distributions in 2009, as elected by the Employer in the Adoption Agreement, will be treated as eligible rollover distributions. If no election is made by the Employer in the Adoption Agreement, then a direct rollover will be offered only for distributions that would be eligible rollover distributions without regard to Code Section 401(a)(9)(H).
- 6.06 Post-Retirement Death Benefits. Should the Participant die after he has begun to receive benefits under an annuity payment option, the guaranteed or remaining payments, if any, under the annuity payment option shall be payable to the Participant's Beneficiary commencing with the first payment due after the death of the Participant. If the Beneficiary does not continue to live for the remaining period of payments under the annuity payment option, then the remaining benefits under the annuity payment option shall be paid to the Beneficiary's beneficiary or, if none, the Beneficiary's estate. Should the Participant die after he has begun to receive benefits under any other payment option, a death benefit equal to the value of the Participant's Account shall be payable to the Beneficiary. Such death benefit shall be paid in a lump sum unless the Beneficiary elects a different payment option. Should the Beneficiary die before the completion of payments under an annuity payment option or before distribution of the entire Participant Account, then the value of the remaining payments under the annuity payment option, or the value of the Participant Account in a lump sum, respectively, shall be paid to the Beneficiary's beneficiary or, if none, the Beneficiary's estate. Payment to the Participant's Beneficiary under this section must comply with Code Section 401(a)(9), and with any additional Code limitations applicable to the Plan. In no event shall the Employer be liable for any payments made in the name of the Participant or a Beneficiary before the Employer or its agent receives proof of the death of the Participant or Beneficiary.
- 6.07 Pre-Retirement Death Benefits. Should the Participant die before he has begun to receive benefits under Section 6.01, a death benefit equal to the value of the Participant's Account shall be payable to the Beneficiary. Such death benefit shall be paid in a lump sum unless the Beneficiary elects a different payment option. Payment to the Participant's Beneficiary must comply with Code Section 401(a)(9), and with any additional Code limitations applicable to the Plan. Should the Beneficiary die before the completion of payments under an annuity payment option or before distribution of the entire Participant Account, the value of the remaining payments under the annuity payment option, or the value of the Participant Account in a lump sum, shall be paid to the Beneficiary's beneficiary or, if none, the Beneficiary's estate.
- 6.08 Unforeseeable Emergency Withdrawals. If the Employer so elects in the Adoption Agreement, then in the event of an unforeseeable emergency, a Participant may apply to the Employer to receive that part of the value of his Account that is reasonably needed to satisfy the emergency need (including any amounts that may be necessary to pay any federal, state or local income taxes or penalties reasonably anticipated to result from the distribution). If such application for withdrawal is approved by the Employer, the Employer shall direct the issuer, trustee or custodian to pay the Participant such value as the Employer deems necessary to meet the emergency need.

The regulations under Section 457(d)(1)(A)(iii) of the Code define an unforeseeable emergency as a severe financial hardship of the Participant or Beneficiary resulting from an illness or accident of the Participant or Beneficiary, the Participant's or Beneficiary's spouse, or the Participant's or Beneficiary's dependent (as defined in Code Section 152, and, for taxable years beginning on or after January 1, 2005, without regard to Code Section 152(b)(1), (b)(2), and (d)(1)(B)); loss of the Participant's or Beneficiary's property due to casualty (including the need to rebuild a home following damage to a home not otherwise covered by homeowner's insurance, e.g., as a result of a natural

disaster); or other similar extraordinary and unforeseeable circumstances arising as a result of events beyond the control of the Participant or Beneficiary. For example, the imminent foreclosure of or eviction from the Participant's or Beneficiary's primary residence may constitute an unforeseeable emergency. In addition, the need to pay for medical expenses, including non-refundable deductibles, as well as for the cost of prescription drug medication, may constitute an unforeseeable emergency. Finally, the need to pay for the funeral expenses of a spouse or a dependent (as defined in Code Section 152, and, for taxable years beginning on or after January 1, 2005, without regard to Code Section 152(b)(1), (b)(2), and (d)(1)(B)) of the Participant or Beneficiary may also constitute an unforeseeable emergency. Except as otherwise specifically provided in this Section 6.08, neither the purchase of a home nor the payment of college tuition is an unforeseeable emergency.

A distribution on account of an unforeseeable emergency may not be made to the extent that such emergency is or may be relieved through reimbursement or compensation from insurance or otherwise, by liquidation of the Participant's assets, to the extent the liquidation of such assets would not itself cause severe financial hardship, or by cessation of deferrals under the Plan.

Unless otherwise elected in the Adoption Agreement, then effective as of August 17, 2006, a Participant's unforeseeable emergency includes a severe financial hardship of the Participant's primary beneficiary under the Plan, that would constitute an unforeseeable emergency if it occurred with respect to the Participant's spouse or dependent as defined under Code Section 152. For purposes of this section, a Participant's "primary beneficiary under the Plan" is an individual who is named as a Beneficiary under the Plan and has an unconditional right to all or a portion of the Participant's account balance under the Plan upon the Participant's death.

- 6.09 Transitional Rule for Annuity Payment Option Elections. If this Plan document constitutes an amendment and restatement of the Plan as previously adopted by the Employer and if a Participant or Beneficiary has commenced receiving benefits under an annuity payment option, that annuity payment option shall remain in effect notwithstanding any other provision of this Plan.
- 6.10 Participant's Election to Receive In-Service Distribution. If the Employer so elects in the Adoption Agreement, a Participant may elect to receive an in-service distribution of the total amount payable to him under the Plan if:
- (a) such amount does not exceed the dollar amount under Section 411(a)(11)(A) of the Code,
 - (b) no amount has been deferred under the Plan with respect to the Participant during the two-year period ending on the date of the distribution, and
 - (c) there has been no prior distribution under the Plan to the Participant under this Section 6.10 or under Section 6.11.
- 6.11 Distribution without Participant's Consent. If the Employer so elects in the Adoption Agreement, the total amount payable to a Participant under the Plan may be distributed to the Participant without his consent if:
- (a) such amount does not exceed \$1,000,
 - (b) no amount has been deferred under the Plan with respect to the Participant during the two-year period ending on the date of the distribution, and
 - (c) there has been no prior distribution under the Plan to the Participant under this Section 6.11 or under Section 6.10.
- 6.12 In-plan Roth Conversions. If the Employer so elects in the Adoption Agreement, Participants may elect to convert certain pre-tax Elective Deferral Contributions, Employer Contributions or rollover contributions to after-tax Roth contributions in an in-plan (taxable) conversion. Such conversion shall be accomplished through a direct rollover from the Participant's applicable pre-tax account to his Roth conversion account (such that there is no actual distribution from the Plan). In-plan Roth conversions are expressly limited to amounts that are currently distributable to the Participant under both Code Section 457(d)(1)(A) and the terms of the Plan. Rollover contributions made on or after January 1, 2006 may be converted at any time. Amounts attributable to Elective Deferral Contributions or Employer Contributions generally cannot be converted before the Participant has attained age 70½ or has had a Severance from Employment. If the Employer elects in the Adoption Agreement to allow in-service distribution of small, inactive accounts, such amounts shall also be eligible for conversion under this section. All in-plan Roth conversions shall be taxable to the Participant in the year of the conversion.
- 6.13 Distributions to Individuals Performing Service in Uniformed Services. If (and only if) elected by the Employer in the Adoption Agreement, a Participant who is deemed to have incurred a Severance from Employment on account of performing services in the uniformed services (as defined in chapter 43 of title 38, United States Code) for a period of active duty of more than 30 days may elect to receive a distribution of all or a portion of the Participant's Account under the Plan. However, the Plan will not distribute the Participant's Account without the Participant's consent.

If the Participant elects to receive a distribution under this provision, the Participant may not make an Elective Deferral Contribution or a Designated Roth Contribution to the Plan during the 6-month period beginning on the date of the distribution.

- 6.14 Eligible Retired Public Safety Officer Distribution Deduction Election. Unless the Employer elects otherwise in the Adoption Agreement, for distributions in taxable years beginning after December 31, 2006, an "Eligible Retired Public Safety Officer" may elect annually for that taxable year to have the Plan (i) deduct an amount from the distribution which the Eligible Retired Public Safety Officer otherwise would receive (and include in income) and (ii) pay such deducted amounts directly to the provider of an accident or health insurance plan or qualified long-term care insurance contract. The amount deducted (and paid to the provider) may not exceed the lesser of \$3,000 or the amount the Participant paid for such taxable year for qualified healthcare premiums, and which otherwise complies with Code Section 402(l). For purposes of this section: (i) an "Eligible Retired Public Safety Officer" is an individual who, by reason of disability or attainment of normal retirement age, has experienced a Severance from Employment as a Public Safety Officer with the Employer, (ii) a "Public Safety Officer" has the same meaning as in Section 1204(9)(A) of the Omnibus Crime Control and Safe Streets Act of 1968, and (iii) the term "qualified health insurance premiums" means premiums for coverage for the Eligible Retired Public Safety Officer, his spouse and dependents, by an accident or health plan or a qualified long-term care insurance contract (as defined in Code Section 7702B(b)).

ARTICLE VII. NON-ASSIGNABILITY

- 7.01 In General. Except as provided in Section 7.02, the interests of each Participant or Beneficiary under the Plan are not subject to the claims of the Participant's or Beneficiary's creditors; and no Participant or Beneficiary shall have any right to commute, sell, assign, pledge, transfer or otherwise convey or encumber the right to receive any payments hereunder or any interest under the Plan, which payments and interests are expressly declared to be non-assignable and non-transferable.

7.02 Domestic Relations Orders.

- (a) Allowance of Transfers: Notwithstanding Section 7.01, if a judgment, decree or order (including approval of a property settlement agreement) that relates to the provision of child support, alimony payments, or the marital property rights of a spouse or former spouse, child, or other dependent of a Participant is made pursuant to a State domestic relations law ("domestic relations order"), then the amount of the Participant's Account shall be paid in the manner and to the person or persons so directed in the domestic relations order. Such payment shall be made without regard to whether the Participant is eligible for a distribution of benefits under the Plan. The Plan Administrator shall establish reasonable procedures for determining the status of any such decree or order and for effectuating distribution pursuant to the domestic relations order. Where necessary to carry out the terms of such an order, a separate Account may be established with respect to the spouse, former spouse, or child who shall be entitled to make investment selections with respect thereto in the same manner as the Participant.
- (b) Release from Liability to Participant: The Employer's liability to pay benefits to a Participant shall be reduced to the extent that amounts have been paid or set aside for payment to a spouse, former spouse, child, or other dependent pursuant to paragraph (a) of this section. No such transfer shall be effectuated unless the Employer or Service Provider has been provided with satisfactory evidence that the Employer and the Service Provider are released from any further claim by the Participant with respect to such amounts. The Participant shall be deemed to have released the Employer and the Service Provider from any claim with respect to such amounts, in any case in which (i) the Employer or Service Provider has been served with legal process or otherwise joined in a proceeding relating to such transfer, (ii) the Participant has been notified of the pendency of such proceeding in the manner prescribed by the law of the jurisdiction in which the proceeding is pending by service of process in such action or by mail from the Employer or Service Provider to the Participant's last known mailing address, and (iii) the Participant fails to obtain an order of the court in the proceeding relieving the Employer or Service Provider from the obligation to comply with the judgment, decree, or order. The Participant shall also be deemed to have released the Employer or Service Provider if the Participant has consented to the transfer pursuant to the terms of a property settlement agreement and/or a final judgment, decree, or order as described in paragraph (a).
- (c) Participation in Legal Proceedings: The Employer and the Service Provider shall not be obligated to defend against or seek to have set aside any judgment, decree, or order described in paragraph (a) or any legal order relating to the garnishment of a Participant's benefits, unless the full expense of such legal action is borne by the Participant. In the event that the Participant's action (or inaction) nonetheless causes the Employer or Service Provider to incur such expense, the amount of the expense may be charged against the Participant's Account and thereby reduce the Employer's obligation to pay benefits to the Participant. In the course of any proceeding relating to divorce, separation, or child support, the Employer and Service Provider shall be authorized to the extent permitted by

applicable laws to disclose information relating to the Participant's Account to the Participant's spouse, former spouse, or child (including the legal representatives of the spouse, former spouse, or child), or to a court.

- (d) Effective April 6, 2007, a domestic relations order will not fail to be a domestic relations order (1) solely because the order is issued after, or revises, another domestic relations order; or (2) solely because of the time at which the order is issued, including issuance after the annuity starting date or after the Participant's death. A domestic relations order described in this paragraph is subject to the same requirements and protections that apply to domestic relations orders.

ARTICLE VIII. TRANSFERS AND ROLLOVERS

8.01 Transfers. This Plan shall accept and allow transfers, pursuant to Code Section 457, of amounts deferred by an individual under this Plan or another eligible deferred compensation plan meeting the requirements of Section 457(g) of the Code, provided the conditions of this Section 8.01 are met.

- (a) Directed by Individual Participant or Beneficiary. A transfer from this Plan to another eligible governmental deferred compensation plan or from another eligible governmental deferred compensation plan to this Plan is permitted only if the transferor plan provides for transfers, the receiving plan provides for the receipt of transfers, the Participant or Beneficiary whose amounts deferred are being transferred shall have an amount deferred immediately after the transfer at least equal to the amount deferred with respect to that Participant or Beneficiary immediately before the transfer, and in the case of a transfer for a Participant, the Participant whose amounts deferred are being transferred has had a severance from employment with the transferring employer and is performing services for the employer maintaining the transferee plan. Upon the transfer of assets from this Plan under this paragraph (a), the Plan's liability to pay benefits to the Participant or Beneficiary under this Plan shall be discharged to the extent of the amount so transferred for the Participant or Beneficiary.

Any such transferred amount shall not be treated as a deferral subject to the limitations of Section 2.18, except that, for purposes of applying the limit of Section 2.18, an amount deferred during any taxable year under the plan from which the transfer is accepted shall be treated as if it had been deferred under this Plan during such taxable year and compensation paid by the transferor employer shall be treated as if it had been paid by the Employer.

- (b) Permissive Service Credit Transfers. Subject to any limitations imposed by an investment provider, if a Participant is also a participant in a tax-qualified defined benefit governmental plan (as defined in Code Section 414(d)) that provides for the acceptance of plan-to-plan transfers with respect to the Participant, then the Participant may elect to have any portion of the Participant's Account transferred to the defined benefit governmental plan. A transfer under this paragraph (b) may be made before the Participant has had a Severance from Employment.

A transfer may be made under this paragraph (b) only if the transfer is either for the purchase of permissive service credit (as defined in Code Section 415(n)(3)(A)) under the receiving defined benefit governmental plan or a repayment to which Code Section 415 does not apply by reason of Code Section 415(k)(3).

8.02 Rollovers. A Participant may elect to roll an Eligible Rollover Distribution to an Eligible Retirement Plan. The Participant shall be provided with a description of available rollover rights and rules in advance of such a distribution. A distribution that is an Eligible Rollover Distribution and that is paid in a form other than a rollover shall be subject to mandatory withholding of 20%, or such other mandatory withholding rate as may be imposed under the Code from time to time. This Plan shall be permitted to accept a rollover distribution from an Eligible Retirement Plan (including a distribution from an IRA) to this Plan, subject to any administrative restrictions imposed by the Plan or by the investment provider. To the extent required under the Code, the Plan shall separately account for any rollover contributions it receives. Rollover contributions to the Plan before January 1, 2006, shall be subject to the same restrictions on distributions applicable to other amounts held under the Plan. Rollover contributions to the Plan on or after January 1, 2006, shall not be subject to the same restrictions on distributions applicable to other amounts held under the Plan, and such rollover contributions may be distributed at any time.

8.03 Non-spousal Beneficiary Rollovers.

- (a) For distributions after December 31, 2009, and unless otherwise elected in the Adoption Agreement, for distributions between January 1, 2007 and December 31, 2009, a non-spouse Beneficiary who is a "designated beneficiary" under Code Section 401(a)(9)(E) and the regulations thereunder, may roll over, by a direct trustee-to-trustee transfer ("direct rollover"), all or any portion of his distribution to an individual retirement account the Beneficiary establishes for purposes of receiving the distribution. In order to roll over the distribution, the distribution otherwise must satisfy the definition of an Eligible Rollover Distribution.

- (b) Although a non-spouse Beneficiary may roll over directly a distribution as provided in paragraph (a) above, any distribution made prior to January 1, 2010, is not subject to the direct rollover requirements of Code Section 401(a)(31) (including Code Section 401(a)(31)(B), the notice requirements of Code Section 402(f) or the mandatory withholding requirements of Code Section 3405(c)). If a non-spouse Beneficiary receives a distribution from the Plan, the distribution is not eligible for an indirect "60-day" rollover.
- (c) If the Participant's named Beneficiary is a trust, the Plan may make a direct rollover to an individual retirement account on behalf of the trust, provided the trust satisfies the requirements to be a "designated beneficiary" within the meaning of Code Section 401(a)(9)(E).
- (d) A non-spouse Beneficiary may not roll over an amount which is a required minimum distribution, as determined under applicable Treasury regulations and other Internal Revenue Service guidance. If the Participant dies before his required beginning date and the non-spouse Beneficiary rolls over to an IRA the maximum amount eligible for rollover, the Beneficiary may elect to use either the 5-year rule or the life expectancy rule, pursuant to Section 1.401(a)(9)-3, A-4(c) of the regulations, in determining the required minimum distributions from the IRA that receives the non-spouse Beneficiary's distribution.

ARTICLE IX. LOANS

If the Employer so elects under the Adoption Agreement, loans shall be made available to all Participants on a reasonably equivalent basis, but only to the extent permitted under the Annuity Contract or other Plan investment and the provisions of this Article. No loan shall be made available under this Plan unless it satisfies all of the requirements of Code Section 72(p) and any other applicable regulatory guidance, including the limitations on the total of a Participant's non-taxable loans from all plans of the Employer for treatment as a tax-free loan. The making of loans under this Plan shall be subject to written guidelines set forth in a separate document (or under the Annuity Contract), which guidelines shall govern the availability, terms and procedures for Participants to obtain loans under this Plan. The availability of loans under this Plan may be suspended, terminated or modified at any time.

ARTICLE X. AMENDMENT OR TERMINATION OF PLAN

- 10.01 Amendment or Termination. The Employer may at any time amend this Plan or terminate this Plan and distribute the Participants' Accounts in conformity with the Code; provided, however, that such amendment or termination shall not impair the rights of Participants or their Beneficiaries with respect to any compensation deferred before the date of the amendment or termination of this Plan except as may be required to maintain the tax status of the Plan under the Code. In the event that the Plan is terminated, amounts deferred under the Plan (and all Plan assets) shall be distributed to all Plan Participants and Beneficiaries as soon as administratively practicable after the termination of the Plan.
- 10.02 Amendment and Restatement of Previously Adopted Plan. If this Plan document constitutes an amendment and restatement of the Plan as previously adopted by the Employer, the amendments contained herein shall be effective as of the Effective Date, and the terms of the preceding plan document shall remain in effect through such date.

ARTICLE XI. USERRA

An Employee whose employment is interrupted by qualified military service under Code Section 414(u) or who is on a leave of absence for qualified military service under Code Section 414(u) may defer additional Compensation upon resumption of employment with the Employer equal to the maximum amount of Compensation that could have been deferred during that period if the Employee's employment with the Employer had continued (at the same level of Compensation) without the interruption of leave, reduced by the amount of Compensation, if any, actually deferred during the period of the interruption or leave. This right applies for five years following the resumption of employment (or, if sooner, for a period equal to three times the period of the interruption or leave).

ARTICLE XII. MISTAKEN CONTRIBUTIONS

If any contribution (or any portion of a contribution) is made to the Plan by a good faith mistake of fact, then within one year after the payment of the contribution, and upon receipt in good order of a proper request approved by the Plan Administrator, the amount of the mistaken contribution (adjusted for any income or loss in value, if any, allocable thereto) shall be returned directly to the Participant or, to the extent required or permitted by the Plan Administrator, to the Employer.

ARTICLE XIII. RELATIONSHIP TO OTHER PLANS

This Plan serves in addition to any other retirement, pension or benefit plan or system presently in existence or hereinafter established.

ARTICLE XIV. PARTICIPATING EMPLOYERS

- 14.01 Adoption of Plan. With the consent of the Employer, the Plan may be adopted by any other governmental entity described in Code Section 457(e)(1)(A), and each such adopting entity shall be known as a Participating Employer. Such adoption of the Plan shall be evidenced by completion of a Participation Agreement signed by both the Employer and the Participating Employer.
- 14.02 Participating Employer's Plan. Each Participating Employer shall be treated as the sponsor of its own separate governmental Code Section 457(b) eligible deferred compensation plan, subject to the terms and conditions of this Plan document. Accordingly, although the assets of the Plan may be held in a single trust (or annuity contract or custodial account that is treated as a trust), the assets attributable to the Employer and to each Participating Employer shall be accounted for separately. Except as provided below, wherever a right or obligation is imposed upon the Employer by the terms of the Plan, the same shall extend to each Participating Employer under the Plan, and shall be separate and distinct from that imposed upon the Employer.
- 14.03 Participating Employer's Participation. Except as otherwise provided below, it is the intention of the Employer that each Participating Employer shall be a party to the Plan and shall be treated in all respects as the Employer thereunder, with its employees to be considered as Employees or Participants, as the case may be, under the Plan. However, the participation of a Participating Employer in the Plan shall in no way diminish, augment, modify, or in any way affect the rights and duties of the Employer or its Employees under the Plan.
- 14.04 Severance from Employment. For purposes of Section 2.22 (Severance from Employment), the term Employer means the governmental entity that the Participant was employed by (or under contract with) at the time of his termination of employment.
- 14.05 Plan Administrator. For purposes of Article III (Administration), each Participating Employer shall serve as (or appoint another person to serve as) the Plan Administrator of such Participating Employer's plan. Each Participating Employer (or the person designated by such Participating Employer as the Plan Administrator of that Participating Employer's plan) shall have full power to adopt, amend, and revoke such rules and regulations consistent with and as may be necessary to implement, operate and maintain its participation in the Plan and to make discretionary decisions affecting the rights or benefits of its own Participants under the Plan.
- 14.06 Investments and Administrative Services. Only the Employer shall have the right to enter into contracts or agreements with investment providers or other companies providing administrative services to the Plan. The Employer shall act as the agent of each Participating Employer with respect to such investment contracts and/or services agreements. The Employer's choice of investment and administrative service providers shall be binding on each Participating Employer and, by signing the Participation Agreement, the Participating Employer agrees to be bound by the terms and conditions of any such investment contracts and/or services agreements.
- 14.07 Amendment or Termination of the Plan. Only the Employer shall have the right to amend or terminate the Plan under Article X. The Employer's amendment or termination of the Plan shall be binding on each Participating Employer and, by signing the Participation Agreement, the Participating Employer agrees to be bound by the terms and conditions of any such amendment or termination of the Plan.
- 14.08 Revocation of Participation. A Participating Employer may at any time (by written notice to the Employer) revoke its participation in the Plan, in which case the Participating Employer must adopt its own plan document and provide its own trust or other funding arrangement for the assets attributable to its Participants. If a Participating Employer revokes its participation in the Plan, the Employer shall direct the Trustee of the Plan's trust (and/or the issuer of any annuity contract or the custodian of any custodial account holding Plan assets) to transfer the Plan assets attributable to the Participating Employer's Participants to such separate funding arrangement as soon as administratively practicable following the Participating Employer's revocation of its participation in the Plan.



Jackson County ADMINISTRATOR/CONTROLLER

Michael R. Overton, Administrator/Controller Adam J. Brown, Deputy Administrator

TO: Personnel & Finance
 Board of County Commissioners

FROM: Michael R. Overton
 Administrator/Controller

SUBJECT: Non Union Salary Increase

DATE: November 29, 2011

Motion Requested

Approve an Additional One-Percent Salary Increase to All Non-Union Employees for 2012.

I. Background

- A. In 2009 the County reduced non-union compensation by eliminating performance incentive payments. The County attempted to negotiate with collective bargaining units to eliminate what is known to them, as longevity.
- B. The performance incentive payment, similar to longevity for unions, is a one-time pay of a percentage of the employee's salary based upon an evaluation (there is no evaluation required for longevity).
- C. The reality of the performance incentive payments was that it worked more like longevity than pay for performance. Furthermore, not all employees received performance incentive payments. In 2003 the County eliminated performance incentive payments for all non-union new hires. Other bargaining units have also gone to a tiered approach between 2003 and the present day.
- D. Performance incentive payments ranged from 2-4% of the base salary. Longevity payments are very similar, but vary from union to union.

II. Current Situation

- A. The County is actively negotiating union contracts. One of the County economic positions is the elimination of employee longevity pay with the condition that the County would provide an additional one percent pay increase to the currently budgeted one percent.

- B. Rather than make the additional 1% available to non-union employees at the mercy of the collective bargaining units, we believe it is fair to adjust the non-union employees up 1% beginning in 2012 since they have already sacrificed compensation for the past two years. We are recommending that the Board increase the non-union employee compensation up 1% in addition to the 1% already approved in the 2012 budget.

III. Analysis

- A. **Strategic Impact** – One of the Board’s strategic priorities is to have an improved work environment. Not only did non-union employees go without market adjustments for two years as all of our unions agreed, but they additionally gave up performance incentive payments.
- B. **Financial Impact** – The projected increase for this recommendation is \$75,000. Sufficient funds exist in the 2012 contingency to cover this cost.
- C. **Legal/Policy Impact** – Reaffirms the County’s position of fair and equitable treatment of employees. Only the Board of County Commissioners is authorized to make changes to compensation.
- D. **Timing** – This recommendation supports one of the County’s economic positions in union negotiations.

- IV. **Alternatives** – The Board can choose to not act on this recommendation. Employees will be compensated as budgeted for in the approved 2012 Budget.

V. Recommendation

The Administrator/Controller recommends that the Board of County Commissioners approve an additional one percent salary increase to all non union employees for 2012.

Attachments: None.



Jackson County ADMINISTRATOR/CONTROLLER

Michael R. Overton, Administrator/Controller Adam J. Brown, Deputy Administrator

TO: Personnel & Finance Committee
 Board of County Commissioners

FROM: Michael Overton
 County Administrator/Controller

SUBJECT: Exception to the Non-Union Handbook

DATE: November 29, 2011

Motion Requested

Approve Exception to the Non-Union Handbook by Granting the Preferred Candidate for the Senior Accountant Position 20 Days of Leave Per Year.

I. Background

- A. In September of 2011 the Board of County Commissioners approved the creation of a Senior Accountant Position as part of a re-organization between the Health Department and the County Finance Department.
- B. Staff recommended this position out of a need for more depth in the area of governmental accounting. The County has a number of specialized accounting/bookkeeping positions, but no one other than the Finance Officer has an overall understanding and appreciation of the complexity of the greater county accounting functions. For an organization with more than 500 employees and a general fund operating budget of \$42 million, a Senior Accountant position was warranted.
- C. Recruiting for the position began shortly after the Board approved the position.

II. Current Situation

- A. The interview team, which included Gerard Cyrocki, Ted Westmeier, Joni Johnson, and Adam Brown, interviewed a number of candidates. The preferred candidate that the interview team deems to be the best fit for Jackson has senior level experience.
- B. The Non-Union Employee Handbook specifies that only 5 days of leave may be granted to new employees for their first year. The rate of accumulation thereafter is 15 days per year until they reach 7 years.
- C. The preferred candidate is a CPA and has over 30 years of professional accounting experience.

III. Analysis

- A. **Strategic Impact** – The primary focus of this position is to maintain the Health Department Finances. The Health Department activities support the Board’s Strategic Goal of having a Healthy Community. The Finances for the Health Department are complex and have been maintained such that we have accrued a healthy fund balance.
- B. **Financial Impact** – There is little immediate financial impact for granting more days of leave. We expect that the employee will perform at a high level of experience given the years of experience he brings.
- C. **Legal/Policy Impact** – Hiring decisions of staff are made by Department Heads or the Administrator/Controller. Benefits, however, are approved by the Board of County Commissioners. Exceptions to the Non-Union Handbook must be approved by the Board of County Commissioners. This exception would only apply to this hire and would not extend to others. The Board may wish to pursue policy options for granting the Administrator/Controller authority to make exceptions for positions with professional experience.
- D. **Timing** – The candidate has accepted the job offer conditioned upon receiving leave commensurate with his experience. The candidate would prefer to begin on December 19th.

IV. **Alternatives** – The candidate will not accept the position without the exception. The interview panel would likely re-advertise for the position, which would delay filling the position.

V. Recommendation

The Administrator/Controller recommends the Board of County Commissioners grant an exception to the non-union handbook by granting the preferred candidate for the Senior Accountant Position 20 days of leave per year.

Attachments:



Jackson County ADMINISTRATOR/CONTROLLER

Michael R. Overton, Administrator/Controller Adam J. Brown, Deputy Administrator

TO: Personnel & Finance
Board of County Commissioners

FROM: Michael R. Overton
Administrator/Controller

SUBJECT: Appropriation of Year-End Savings

DATE: November 29, 2011

Motion Requested

Approve Budget and Appropriation of Year-End Savings of \$50,000 to Organizational Key 245351 for Improvements to the Wesley Street Jail Mechanical Work and \$950,000 to Organizational Key 245110 to the Riverwalk Hotel Demolition.

I. Background

- A. As the year concludes we have a better picture of how the county will end up financially. Our budget is \$42,374,878. Our revenues over expenditures will come out to approximately 2.4% or in real dollars \$1,028,105
- B. The year-end savings comes from a variety of sources. We expect revenues to be approximately \$221,000 less than expected. Personnel costs will be approximately \$183,000 below budget. Non-personnel costs will be approximately \$1,065,000 under budget.
- C. County personnel have done a good job controlling costs; a little here and there adds up over the course of the year.
- D. In 2010 the Board appropriated year-end savings to strategic priorities at the recommendation of the Administrator/Controller.

II. Current Situation

- A. The Administrator/Controller recommends the following appropriation of 2011 Revenues over Expenditures which reflect the board's previously stated priorities for year-end savings and is reflective of the Boards' strategic plan.

1.	Mechanical Work at Sheriff's Department	\$50,000
2.	Riverwalk Hotel Demolition	<u>\$950,000</u>
		\$1,000,000

- B. The Sheriff's department HVAC system proved inadequate in the heat of the summer. It is reaching the end of its lifecycle and extreme measures have been used to extend its life span. Some of our year-end savings are attributable to boarding fees from the state, so it makes sense to put the revenue back in to our facilities.
- C. The Riverwalk has stood vacant for over 10 years and is an impediment to the continued viability of the commercial district in downtown Jackson. The County budgeted \$300,000 in 2010 and set aside \$500,000 in the 2012 budget for the razing of the structure. The most recent engineer's estimate for demolition was around \$2 million.
- D. With the additional appropriation, \$1.8 million in total, it is conceivable that the hotel could be taken down in 2012 with favorable bids.

III. Analysis

- A. **Strategic Impact** – Demolition of the Riverwalk hotel supports the Board's strategic priority of Economic Development specifically in terms of the downtown corridor improvements cited in the Economic Development Strategic Plan. The Riverwalk hotel sits at the northeastern end of the downtown near Cooper Street, which contributes to the first impression of those interested in relocating their business to the downtown.
- B. **Financial Impact** – These expenditures do not adversely affect the County's budget. Not appropriating these year-end savings will result in an increased fund-balance. These year-end savings are only made possible by the stewardship of Department Heads and Elected Officials.
- C. **Legal/Policy Impact** – The Board of Commissioners must authorize appropriation of year-end savings.
- D. **Timing** – This is the last month to budget year-end savings to be applied to the current fiscal year. If action is not taken this month, the Board will have to appropriate it from fund balance. The improvements to the HVAC system for the Jail should be completed prior to the return of the summer heat.

IV. **Alternatives** – The County Commissioners have reaffirmed on two separate occasions the importance and priority of razing the Riverwalk hotel.

V. Recommendation

The Administrator/Controller recommends the Board of County Commissioners reallocate the savings as aforementioned.

Attachments:



J X N

Jackson County Airport

3606 Wildwood Avenue
(517) 788-4225

Jackson, Michigan 49202
FAX (517) 788-4682

Mike Overton, Administrator-Controller

FROM: Kent L. Maurer, Airport Manager
SUBJECT: 2011 Capital Improvement Carryover to 2012
DATE: November 10, 2011

Motion Requested: To carryover of \$18,000 in the 2011 Airport capital improvement to the 2012 Airport capital improvement budget

I. Background

The airport was allocated \$18,000 to rehabilitate the air traffic control tower roof. All bids were over that amount by a minimum of \$9,000 so the project could not be completed. The money would be used during 2012 for emergency tuck pointing on Hangar #201 where the bricks have delaminated from the wall are in danger of falling.

II. Current Situation

The money will not be expended in 2011 and would be put to a useful purpose in 2012. Funding for the air traffic control tower roof will be requested for 2013. The roof is not leaking and the rehabilitation was preventative.

III. Analysis

A. Strategic	Repairs are prioritized with need
B. Financial	No net change
C. Customer	Airport
D. Timing	Immediate

IV. Recommendation

I recommend approval of this request.

Attachments: Budget adjustment form.

**COUNTY OF JACKSON
AIRPORT PIB-BUDGET ADJUSTMENT
REVENUE
2012-CARRYOVER**

[illegible][illegible]

DEPT HEAD _____

DATE _____

COMMITTEE _____ DATE _____

BUDGET DIR _____

DATE _____

ADMIN	DATE
-------	------

BOARD OF COMM _____ DATE _____

COUNTY OF JACKSON
DEPT. ON AGING BUDGET ADJUSTMENT
REVENUE
2011

[illegible]

REASONING:	
Receiving more MiCafe revenue than anticipated.	
More DHS electronic transfer funds for home care than expected.	
Exercise class donations increased.	
Receiving more MMAP revenue than anticipated.	

DEPT HEAD

DATE 11/23/11

COMMITTEE

DATE _____

BUDGET DIR

DATE _____

ADMIN

DATE _____

BOARD OF COMM

DATE _____

COUNTY OF JACKSON
DEPT. ON AGING BUDGET ADJUSTMENT
EXPENSE
2011

LINE ITEM				ACCOUNT DESCRIPTION	CURRENT BUDGET	INCREASE	DECREASE	AMENDED BUDGET
FUND	DEPT.	ACCOUNT						
								0
101	673	864	000	Gasoline Usage	26,950		450	26,500
								0
101	674	864	000	Gasoline Usage	2,000	1,080		3,080
								0
101	678	959	060	Respite	56,646		3,255	53,391
								0
101	672	959	060	Respite (Chore supplies)	2,500		700	1,800
								0
101	673	741	000	Food charges	360,000	10,562		370,562
								0
101	674	741	000	Food charges	77660	500		78,160
								0
101	678	957	000	Employee Training	250	55		305
								0
101	670	850	000	Telephone Usage	400	78		478
						12,275	4,405	7,870

REASONING:	
Adjust gasoline usage lines based on average gasoline usage.	
Lower Alzheimer's respite hours in December.	
Food charges increased.	
Counseling training charges and Home Care telephone charges increased.	

DEPT HEAD Marc W. Wardell

BUDGET DIR _____

DATE 11/23/11

DATE _____

COMMITTEE _____ DATE _____

ADMIN _____ DATE _____

BOARD OF COMM _____ DATE _____

2011

[illegible]

REASONING: Adjust transfer to a fiscally responsible level

DEPT HEAD

BUDGET DIR

DATE 11.23.11

DATE _____

COMMITTEE

ADMIN

BOARD OF COMM

DATE _____

DATE _____

DATE _____

Memorandum

To: Personnel & Finance

From: Finance Officer

Date: December 5, 2011

Re: General Fund Budget Adjustments December 31, 2011

Attached to this memo is the annual General Fund budget adjustment summary for 2011. Please note revenue and expense line items are adjusted by "object code" and amounts in excess of \$10,000 (as per BOC policy) are presented for your approval. Personnel line item costs are presented by department total. Personnel line item costs include wages and benefits and adjustments can be attributed for various reasons including but not limited to wages, float adjustments, retirement costs, health insurance, beginning/year end accruals, and so forth.

The process for this annual year end adjustments starts in the late fall. Projections are prepared and sent to departments for their review and input and discussion.

Significant events this year included having State Revenue Sharing reinstated to the full allocation. This resulted in additional revenue of \$1.3 million. The impact of this additional revenue allowed the County to preserve nearly \$1 million of fund balance monies from Budget Stabilization Fund and General Fund. Additionally, the county is expected to experience favorable operating results from the Sheriff department primarily due to boarding revenue and reinstatement of "diverted felon" funding.

The County is expected to experience unfavorable results in interest rate revenue, court fines & fees, and other State shared court funding revenue.

Overall, personnel expenses are expected to come in under budget by nearly \$200,000 in 2011. However, miscellaneous line item expense accounts such as attorney fees, Michigan Tax Tribunal adjustments, insurance, termination costs, are expected to be over budget by \$95,000.

**JACKSON COUNTY
PROPOSED GENERAL FUND
BUDGET ADJUSTMENTS
DECEMBER 31, 2011**

<u>PERSONNEL COSTS</u>			OVER (UNDER) BUDGET
101226	XXXXXX	Wages & benefits	66,850
101351	XXXXXX	Wages & benefits	66,319
101356	XXXXXX	Wages & benefits	35,874
101274	XXXXXX	Wages & benefits	32,165
101257	XXXXXX	Wages & benefits	19,395
101267	XXXXXX	Wages & benefits	10,173
101229	XXXXXX	Wages & benefits	(13,176)
101331	XXXXXX	Wages & benefits	(15,462)
101131	XXXXXX	Wages & benefits	(18,403)
101236	XXXXXX	Wages & benefits	(20,577)
101225	XXXXXX	Wages & benefits	(22,984)
101215	XXXXXX	Wages & benefits	(33,432)
101201	XXXXXX	Wages & benefits	(39,312)
101431	XXXXXX	Wages & benefits	(43,338)
101136	XXXXXX	Wages & benefits	(43,785)
101345	XXXXXX	Wages & benefits	(66,906)
101301	XXXXXX	Wages & benefits	(114,283)
101890	989000	Contingency	(200,883)

<u>NON-PERSONNEL EXPENSES LINE ITEMS</u>			OVER (UNDER) BUDGET
101136	730000	OFFICE SUPPLIES	(10,429)
101136	802220	CONTRACTUAL-BENCH WARRANT COLL	(14,832)
101136	729000	POSTAGE	(15,274)
101136	760131	DRUG TESTING	(20,084)
101191	728000	PRINTING	16,789
101201	979201	ADMINISTRATOR/CONTROLLER	32,048
101222	816020	COMPUTER SOFTWARE	(13,783)
101230	800211	2011 FELONY CONTRACT	81,342
101230	800290	ATTNY SERVICES-FAMILY DEFENSE	(11,102)
101230	810000	ATTORNEY SERVICES	(25,711)
101257	802000	CONTRACTUAL SERVICES	(93,066)
101268	921000	UTILITIES	24,702
101268	922000	HEATING COSTS	(12,248)
101269	922000	HEATING COSTS	11,749
101274	922000	HEATING COSTS	(21,853)
101275	802000	CONTRACTUAL SERVICES	13,493
101301	864000	GASOLINE USAGE	36,601
101301	802000	CONTRACTUAL SERVICES	(10,865)
101301	816000	SERVICE CONTRACTS	(18,612)

			OVER (UNDER) BUDGET
101301	863000	VEHICLE REPAIR & MAINTENANCE	(18,780)

**JACKSON COUNTY
PROPOSED GENERAL FUND
BUDGET ADJSUTMENTS
DECEMBER 31, 2011**

101345	816000	SERVICE CONTRACTS	(13,167)	
101351	921000	UTILITIES	37,683	
101351	746000	FOOD SERVICES	28,050	
101351	776000	CLEANING SUPPLIES	14,727	
101351	760000	MEDICAL SERVICES	(11,838)	
101351	816000	SERVICE CONTRACTS	(26,903)	
101430	865100	ANIMAL DISPOSAL	(10,300)	
101632	716010	HEALTH INSURANCE - RETIREES	34,390	
101632	801025	HUMANA INSURANCE PREMIUM	(16,621)	
101632	716012	HEALTH INSURANCE-MCF RETIREES	(35,436)	
101982	965470	TRANSFER OUT-JUSTICE CENTER	(148,400)	
101998	965051	APPROP-SUBST ABUSE 4% LIQUOR	21,350	
101998	965201	APPROP-JACKSON TRAFFIC SAFETY	(19,624)	
101999	964000	TAX TRIBUNAL REFUND	87,745	
101999	912000	INSURANCE AND BONDS	73,119	
101999	728020	BANK CHARGES	51,610	
101999	721000	TERMINATION COSTS	50,000	
101999	810000	ATTORNEY SERVICES	21,710	
101890	989000	Contingency		68,181

**JACKSON COUNTY
PROPOSED GENERAL FUND
BUDGET ADJSUTMENTS
DECEMBER 31, 2011**

<u>REVENUE LINE ITEMS</u>			OVER (UNDER) BUDGET
101131	625010	OTHER-PROBATE	(20,272)
101136	608010	CIVIL FEES	38,601
101136	625020	MISCELLANEOUS INCOME	21,486
101136	689041	REIMBURSEMENT - LAB TESTS	(20,734)
101136	604010	PRE-SENTENCE FEES	(29,986)
101136	604000	PROBATION OVERSIGHT	(32,500)
101136	657050	COURT COSTS-JUSTICE CENTER	(124,153)
101136	660010	COURT COSTS	(199,025)
101191	673065	BALLOT/PRINT/AD/REIMBURSEMENT	14,220
101215	693100	DIVORCE PACKET FEES	12,733
101215	695000	MISCELLANEOUS	(16,339)
101215	623000	PASSPORTS	(23,005)
101215	617000	COURT COSTS	(43,093)
101225	643075	PROPERTY TAX SERV.-PARMA TWNSP	(15,000)
101226	685011	ADMIN REIMBURSEMENT-CITY HR	83,000
101230	689080	DEFENSE CRIMINALS-12 TH DISTRT	(16,228)
101236	643060	COPY CHARGES	10,000
101236	634000	RECORDINGS	(25,000)
101253	578000	STATE REVENUE-LIQUOR TAX	42,700
101253	695000	MISCELLANEOUS	31,395
101253	575000	REVENUE SHARING	28,831
101253	477000	DOG LICENSES	16,031
101253	685010	ADMIN REIMBURSEMENT	13,712
101253	404000	I.F.T./MISC. TAXES	(47,000)
101253	574000	STATE COURT FUNDING	(155,635)
101253	664000	INTEREST	(200,000)
101279	601000	SERVICE FEES	(48,763)
101301	646090	POLICE SERVICE -NONPROFIT ORG	18,631
101301	486000	GUN PERMITS	16,741
101301	629030	REPORT COPIES	12,274
101301	695000	MISCELLANEOUS	11,379
101351	693050	BOARDING OF PRISONERS	350,584
101351	697040	DIVERTED FELON	157,468
101351	654000	INCARCERATION FEES	41,018
101351	689040	REIMBURSEMENT - MEDICAL	20,419
101351	654100	INMATE COLLECTIONS	13,658
101351	697030	PAROLE VIOLATORS	(44,778)
101430	693030	BOARDING OF ANIMALS	24,034
101430	477000	DOG LICENSES	10,487
101430	650004	ANIMALS SOLD NPO	10,103
101430	650001	DOGS SOLD	(19,961)
101430	650002	CATS SOLD	(28,982)
101890	989000	Contingency	(110,951)

Commissioner Board Appointments – December 2011

<u>BOARD</u>	<u>NEW TERM EXPIRES</u>	<u>CURRENT MEMBER</u>	<u>APPLICANTS</u>	<u>COMMITTEE RECOMMENDED APPOINTMENTS</u>
<u>Airport Board</u> 1) One public member	12/2013	Tom Davis	John Feldvary Michael Brunk	John Feldvary
<u>Board of Public Works</u> 1) One public member	12/2014	Kenneth Elenbaas	Ken Elenbaas Rodney Mills	Ken Elenbaas
<u>Department on Aging Advisory Council</u> 1) One public member	12/2013	Joe Evans	Joe Evans	Joe Evans
1) One public member	12/2013	Diana Liechty		Patricia Spink
1) One public member	12/2013	Troy Ganton	Troy Ganton	Troy Ganton
1) One public member	12/2013	Arlene Shepherd	Arlene Shepherd	Arlene Shepherd
1) One public member	12/2013	Robert Tavalisky	Robert Tavalisky	Robert Tavalisky
1) One public member	12/2013	Peggy Younglove	Peggy Younglove	Peggy Younglove
1) One public member	12/2013	Teresa Abbey	Teresa Abbey Gary Tripp Willie Anderson	Teresa Abbey
<u>District Library</u> 1) One public member	12/2015	George Sewell	George Sewell Sandra Steele Debra Carmody Albert Widner Wendy Sinicki Emanuel Henson	George Sewell

<u>BOARD</u>	<u>NEW TERM EXPIRES</u>	<u>CURRENT MEMBER</u>	<u>APPLICANTS</u>	<u>COMMITTEE RECOMMENDED APPOINTMENTS</u>
<u>Fair Board</u>				
1) One public member	12/2014	Harold Spink	Jill Sears Philip Rosenberger Paul Loik John Thomas Emanuel Henson Nyan Klavon	Jill Sears
<u>Hospital Finance Authority</u>				
1) One public member	12/2012	Karen Coffman	Karen Coffman	Karen Coffman
1) One public member	12/2012	Tony Samon	Tony Samon	Tony Samon
1) One public member	12/2012	Jason Valente	Jason Valente	Jason Valente
1) One public member	12/2012	Randy Treacher	Oliver Lindsay	Michael Overton
<u>Parks</u>				
1) One public member	12/2014	Robert DuBois	Robert DuBois David Rusnell Debra Carmody Benjamin Parker Rodney Mills Edward Peterson Paul Loik Colleen Gibbs Larry Brown	Robert DuBois
<u>Region 2 Planning Commission</u>				
1) One public member	12/2014	Teresa Abbey	Teresa Abbey	Teresa Abbey
1) One public member	12/2014	Elwin Johnson	Elwin Johnson	Elwin Johnson
1) One public member	12/2014	Melissa Bailey		Chelsea Bryant
1) One public member	12/2014	Robert Cole	Cassandra LaGow Paul Loik Chelsea Bryant Nyan Klavon	Nyan Klavon

<u>BOARD</u>	<u>NEW TERM EXPIRES</u>	<u>CURRENT MEMBER</u>	<u>APPLICANTS</u>	<u>COMMITTEE RECOMMENDED APPOINTMENTS</u>
<u>Road Commission</u> 1) One public member	12/2017	Mike Rand	Mike Rand Rodney Mills Michael Maillard Deborah Charles David Herlein	Mike Rand
<u>Traffic Safety Commission</u> 1) One public member	12/2013	Paul Garcia	Paul Garcia Benjamin Parker	Paul Garcia

COUNTY OF JACKSON

REQUEST FOR BOARD OR COMMISSION APPOINTMENT

Mail or personally deliver to: *County of Jackson -- Administrator/Controller's Office -- 6th Floor*
120 West Michigan Avenue, Jackson, MI 49201
(517) 788-4335 FAX (517) 780-4755

The Jackson County Board of Commissioners appoints individuals to numerous Boards and Commissions.
Persons who wish to serve should complete the following information.

NAME: Davis Tom
Last First, Middle Initial
HOME ADDRESS: 251E. Fitchburg Rd. Leslie Mi
Street City Zip Code
TELEPHONE: 517-782-7163 tom@davisagency.us
Home, Work, Cell, or Business (Include Area Code) E-mail Address

Name of Board(s) or Commission(s) to which Appointment is requested:

1. Jackson County Airport 2. 3.

Community Activities/Civic Organization/Boards/Commissions:

Activity / Organization:	Length of Service	Position (s) Held:
Jackson County Airport	8 yrs	Member at Large

Employment:

Davis Insurance Agency	Agent/Owner	June 1983 - Present
Current Employer:	Position:	Dates of Employment:

Education:

Parkside High School, Associates Jackson Community College, BSBA Central Michigan University

Please indicate why you are requesting appointment to this Board (s) /Commission (s):

To continue to assist in the success and developement of the Jackson County Airport.

Additional Information you feel may be helpful in considering your request for appointment:

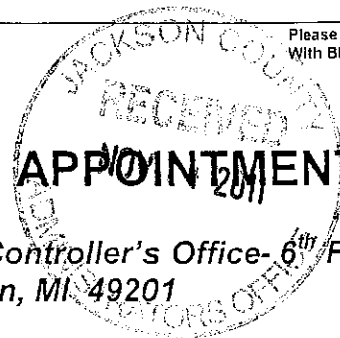
The Airport has had a tremendous turnaround in the last few years and I would like to assist in the continued success of both the Airport and the economic impact it has on the County of Jackson.

Thomas W. Davis 10/20/2011
Signature: Date:

COUNTY OF JACKSON

REQUEST FOR BOARD OR COMMISSION APPOINTMENT

Mail or personally deliver to: County of Jackson Administrator/Controller's Office- 6th Floor
120 West Michigan Avenue, Jackson, MI 49201
(517) 788-4335 fax (517) 780-4755



The Jackson County Board of Commissioners appoints individuals to numerous Boards and Commissions. Persons who wish to serve should complete the following information.

NAME: FELDVARY JOHN K
Last First Middle Initial
HOME ADDRESS: 232 PATS WAY JACKSON 49203
Street City Zip Code
TELEPHONE: 517-782-0878 517-206-3487 (CELL) T6FLIER@GMAIL.COM
Home, Work, Cell, or Business (Include Area Code) E-mail Address

Name of Board(s) or Commission(s) to which Appointment is requested:

1. AIRPORT BOARD 2. _____ 3. _____

Community Activities/Civic Organization/Boards/Commissions:

Activity/Organization:	Length of Service	Position(s) Held:
<u>JTN AIRPORT ADVISORY COUNCIL</u>	<u>5 YRS TO PRESENT</u>	<u>VICE-CHAIRMAN</u>
<u>FAA CHAPTER 304</u>	<u>15 YRS TO PRESENT</u>	<u>REP. TO AIRPORT ADVISORY COUNCIL</u>
<u>JTN FLIGHT FUND BOARD</u>	<u>6 YRS</u>	<u>VICE-CHAIRMAN</u>
<u>JTN HOT AIR JUBILEE</u>	<u>14 YRS</u>	<u>SITE COMMITTEE REP. IN</u>
Employment: <u>JCC Aviation Advisory Committee</u>	<u>6 YEARS</u>	<u>CHARGE OF FIXED WING AIRCRAFT</u>
<u>RETIRED AIRLINE CAPT.</u>		<u>PROCUREMENT AND AIRSHOW</u>
Current Employer:	Position:	Dates of Employment:

Education: B.S. DEGREE - UNIV. OF HOUSTON, HOUSTON TX. - 1969
MBA - LONG ISLAND UNIVERSITY - 1971 (FINANCE)

Please indicate why you are requesting appointment to this Board(s)/Commission(s):

MY PAST EXPERIENCE AND RELATIONSHIP WITH THE JACKSON COUNTY AIRPORT -
OVER 30 YEARS - IN ADDITION TO JTN AIRPORT ADVISORY COUNCIL

Additional Information you feel may be helpful in considering your request for Appointment: CURRENT AIRCRAFT

OWNER (NORTH AMERICAN T-6) BASED AT JTN. PARTICIPATED IN MAN'S HOT AIR JUBILEE'S
AND FOR PAST 8 YEARS ORGANIZED AND FLOWN FOR VARIOUS AIRPORT FUNCTIONS INCLUDING
VETERAN'S DAY AND DEDICATION OF THE AIRPORT HERITAGE PARK.

Signature

Date



COUNTY OF JACKSON REQUEST FOR BOARD OR COMMISSION APPOINTMENT

Mail or personally deliver to: County of Jackson Administrator/Controller's Office- 6th Floor
120 West Michigan Avenue, Jackson, MI 49201
(517) 788-4335 fax (517) 780-4755

The Jackson County Board of Commissioners appoints individuals to numerous Boards and Commissions. Persons who wish to serve should complete the following information.

NAME: Brunk, Michael R.
Last First Middle Initial
HOME ADDRESS: 228 Maiden Lane Pleasant Lk. MI 49272
Street City Zip Code
TELEPHONE: 517 769-6822 danz150@hotmail.com
Home, Work, Cell, or Business (Include Area Code) E-mail Address

Name of Board(s) or Commission(s) to which Appointment is requested:

1. Airport 2. _____ 3. _____

Community Activities/Civic Organization/Boards/Commissions:

Activity/Organization:	Length of Service	Position(s) Held:
<u>AWARE TASK FORCE</u>	<u>5 yrs</u>	<u>Volunteer Committee mbr.</u>
_____	_____	_____
_____	_____	_____

Employment:

Current Employer:	Position:	Dates of Employment:
<u>Retired</u>	_____	_____

Education:

BA Criminal Justice

Please indicate why you are requesting appointment to this Board(s)/Commission(s):

Am retired. Desire to serve.

Additional Information you feel may be helpful in considering your request for Appointment:

Retired City Police Detective & Court Mediator

W. R. Brunk 11.22-11
Signature Date

COUNTY OF JACKSON

REQUEST FOR BOARD OR COMMISSION APPOINTMENT

Mail or personally deliver to: *County of Jackson -- Administrator/Controller's Office -- 6th Floor*
120 West Michigan Avenue, Jackson, MI 49201
(517) 788-4335 FAX (517) 780-4755

The Jackson County Board of Commissioners appoints individuals to numerous Boards and Commissions.
Persons who wish to serve should complete the following information.

NAME: Elenbaas Kenneth _____
Last First, Middle Initial

HOME ADDRESS: 11886 Round Lake Rd Horton 49246
Street City Zip Code

TELEPHONE: 517-688-9306 klelenbaas@cablespeed.com
Home, Work, Cell, or Business (Include Area Code) E-mail Address

Name of Board(s) or Commission(s) to which Appointment is requested:

1. Board of Public Works 2. _____ 3. _____

Community Activities/Civic Organization/Boards/Commissions:

Activity / Organization:	Length of Service	Position (s) Held:
<u>Habitate for Humanity</u>	<u>4 Years</u>	<u>Volunteer Worker</u>
<u>Board of Trustees-FUMChurch</u>	<u>9 years</u>	<u>Chair for 3 years</u>
<u>Leadership Council-FUMChurch</u>	<u>3 years</u>	<u>Chairman</u>

Employment:

<u>Consumers Energy - Retired</u>	<u>Gas Operations Manager</u>	<u>37 Years</u>
Current Employer:	Position:	Dates of Employment:

Education:

BS - Mechanical Engineering - Michigan State University

Please indicate why you are requesting appointment to this Board (s) /Commission (s):

I believe in giving back to the community and the BPW is a good fit to utilize my skills to benefit Jackson County. I have enjoyed my previous terms and look forward to another appointment.

Additional Information you feel may be helpful in considering your request for appointment:

I think my work experience at Consumers Energy and my previous terms on the BPW will be an asset to the BPW in working through the issues that will be addressed in the next few years.

Kenneth L Elenbaas

Signature:

11/3/2011

Date:

COUNTY OF JACKSON

REQUEST FOR BOARD OR COMMISSION APPOINTMENT

Mail or personally deliver to: *County of Jackson -- Administrator/Controller's Office -- 6th Floor*
120 West Michigan Avenue, Jackson, MI 49201
(517) 788-4335 FAX (517) 780-4755

The Jackson County Board of Commissioners appoints individuals to numerous Boards and Commissions.
Persons who wish to serve should complete the following information.

NAME: Mills Rodney
Last First, Middle Initial
HOME ADDRESS: 2715 Forest Lake Jackson 49203
Street City Zip Code
TELEPHONE: HOME 517-782-7539 Cell 517-202-0450 ramroddigdirt@hotmail.com
Home, Work, Cell, or Business (Include Area Code) E-mail Address

Name of Board(s) or Commission(s) to which Appointment is requested:

1. Jackson County Road Commission 2. Board of Public Works 3. Parks Board

Community Activities/Civic Organization/Boards/Commissions:

Activity / Organization:	Length of Service	Position (s) Held:
<u>Lions Club North Jackson</u>	<u>35 Years</u>	<u>Pres. Treas. Zone Chairman</u>
<u>Ella Sharp Member and vollunteer</u>	<u></u>	<u></u>
<u></u>	<u></u>	<u></u>

Employment:

<u>Retired</u>	<u>Former part owner Mills Exc.</u>	<u></u>
Current Employer:	Position:	Dates of Employment:

Education:

High School 1Year JCC

Please indicate why you are requesting appointment to this Board (s) /Commission (s):

Retired and have more time and I belive I have experiance that could benifit any ome of these appointments.

Additional Information you feel may be helpful in considering your request for appointment:

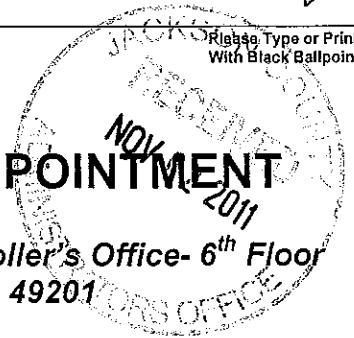
I have been involved with Jackson County both work and social for over 50 years and would like to give a little time and effort back.

Rodney D Mills
Signature:

11/13/2011
Date:

COUNTY OF JACKSON

REQUEST FOR BOARD OR COMMISSION APPOINTMENT



Mail or personally deliver to: County of Jackson Administrator/Controller's Office- 6th Floor
120 West Michigan Avenue, Jackson, MI 49201
(517) 788-4335 fax (517) 780-4755

The Jackson County Board of Commissioners appoints individuals to numerous Boards and Commissions. Persons who wish to serve should complete the following information.

NAME: EVANS JOSEPH A
Last First Middle Initial
HOME ADDRESS: 921 OAK GROVE RD JACKSON 49203
Street City Zip Code
TELEPHONE: 517 782 7779 EVANS624@COMCAST.NET
Home, Work, Cell, or Business (Include Area Code) E-mail Address

Name of Board(s) or Commission(s) to which Appointment is requested:

1. DEPT. ON AGING ADVISORY COUNCIL 3. _____

Community Activities/Civic Organization/Boards/Commissions:

Activity/Organization:	Length of Service	Position(s) Held:
<u>TRAD OF JACKSON CO.</u>	<u>10 YEARS</u>	<u>CHAIR - CO. CHAIR</u>
<u>JACKSON CO. TRAFFIC SAFETY COMM.</u>	<u>4 YEARS</u>	<u>CHAIR</u>
<u>AARP DRIVERS SAFETY PROGRAM</u>	<u>12 YEARS</u>	<u>INSTRUCTOR</u>

Employment:

RETIRED _____
Current Employer: Position: Dates of Employment:

Education:

COLLEGE GRAD. PLUS SEVERAL CLASSES
Please indicate why you are requesting appointment to this Board(s)/Commission(s):
BEING RETIRED, I HAVE TIME TO ATTEND MEETINGS. I ENJOY HELPING

Additional Information you feel may be helpful in considering your request for Appointment:

I VOLUNTEER AT THE SENIOR CENTER (10+ YEARS) AND UNDERSTAND THE ACTIVITIES THERE.

Joe Evans OCT 29, 2011
Signature Date

Please Type or Print
With Black BallpointPlease Type or Print
With Black Ballpoint

COUNTY OF JACKSON

REQUEST FOR BOARD OR COMMISSION APPOINTMENT

Mail or personally deliver to: **County of Jackson Administrator/Controller's Office- 6th Floor**
120 West Michigan Avenue, Jackson, MI 49201
(517) 788-4335 fax (517) 780-4755

The Jackson County Board of Commissioners appoints individuals to numerous Boards and Commissions. Persons who wish to serve should complete the following information.

NAME: GANTON TRAY L
Last First Middle Initial

HOME ADDRESS: 7370 CARTER SPRING ACBAC 49283
Street City Zip Code

TELEPHONE: 517-787-4400 TRAY GANTON 3438614
Home, Work, Cell, or Business (Include Area Code) E-mail Address

Name of Board(s) or Commission(s) to which Appointment is requested:

1. Deer Spring ADU 2. _____ 3. _____

Community Activities/Civic Organization/Boards/Commissions:

Activity/Organization:	Length of Service	Position(s) Held:
<u>SPRING ACBAC TOWNSHIP TRUSTEE</u>	<u>20 + yrs</u>	
<u>ADU</u>		<u>18 yrs</u>

Employment: ARBOR WOODS ASSISTED LIVING OWNER
ACBAC LANE APTS
Current Employer: Position: Dates of Employment:

Education: SPRING ACBAC U - B/A

Please indicate why you are requesting appointment to this Board(s)/Commission(s):

I have insight to working w/ sen

Additional Information you feel may be helpful in considering your request for Appointment:

[Signature]
 Signature

10/25/60
 Date

COUNTY OF JACKSON

REQUEST FOR BOARD OR COMMISSION APPOINTMENT

Mail or personally deliver to: *County of Jackson -- Administrator/Controller's Office -- 6th Floor*
120 West Michigan Avenue, Jackson, MI 49201
(517) 788-4335 FAX (517) 780-4755

The Jackson County Board of Commissioners appoints individuals to numerous Boards and Commissions.
Persons who wish to serve should complete the following information.

NAME: Shepherd Arlene
Last First, Middle Initial

HOME ADDRESS: 3300 Spirea Ct. #426 Jackson 49202
Street City Zip Code

TELEPHONE: 5177681202 arlenes40@comcast.net
Home, Work, Cell, or Business (Include Area Code) E-mail Address

Name of Board(s) or Commission(s) to which Appointment is requested:

1. Crouch Advisory Board 2. 3.

Community Activities/Civic Organization/Boards/Commissions:

Activity / Organization:	Length of Service	Position (s) Held:
<u>Region II Area on Ageing</u>	<u>4 years</u>	<u>Board of Directors</u>
<u>Presently on Crouch Advisory Board</u>	<u></u>	<u></u>
<u></u>	<u></u>	<u></u>

Employment:

Retired

Current Employer:	Position:	Dates of Employment:
<u></u>	<u></u>	<u></u>

Education:

Please indicate why you are requesting appointment to this Board (s) /Commission (s):

Am already on it, would like to continue.

Additional Information you feel may be helpful in considering your request for appointment:

I am a senior who would like to try to make it easier on seniors.

Arlene Shepherd 11/6/2011
Signature: Date:

COUNTY OF JACKSON

REQUEST FOR BOARD OR COMMISSION APPOINTMENT

Mail or personally deliver to: County of Jackson Administrator/Controller's Office- 6th Floor
120 West Michigan Avenue, Jackson, MI 49201
(517) 788-4335 fax (517) 780-4755

The Jackson County Board of Commissioners appoints individuals to numerous Boards and Commissions. Persons who wish to serve should complete the following information.

NAME: TAVALSKY ROBERT F.
Last First Middle Initial
HOME ADDRESS: 3139 CATALPA, JACKSON, 49203
Street City Zip Code
TELEPHONE: 764 4214 BOBTSQB AOL.COM
Home, Work, Cell, or Business (Include Area Code) E-mail Address

Name of Board(s) or Commission(s) to which Appointment is requested:

1. J.C. ADVISORY COUNCIL ON AGING 3. _____

Community Activities/Civic Organization/Boards/Commissions:

Activity/Organization:	Length of Service	Position(s) Held:
<u>J.C. ADVISORY COUNCIL ON AGING</u>		
<u>K of C INCLUDING THE COLOR CORP</u>		
<u>CARE HOME MINISTRY</u>		

Employment:

<u>RETIRED</u>		
Current Employer:	Position:	Dates of Employment:

Education: BS - UNIVERSITY OF PITTSBURGH

Please indicate why you are requesting appointment to this Board(s)/Commission(s):

RENEWAL, I WOULD LIKE TO CONTINUE TO
SERVE ON THE DEPT OF AGING ADVISORY COUNCIL

Additional Information you feel may be helpful in considering your request for Appointment:

Robert F Tavalsky _____
Signature Date

COUNTY OF JACKSON

REQUEST FOR BOARD OR COMMISSION APPOINTMENT

Mail or personally deliver to: County of Jackson Administrative Services Office - 6th Floor
120 West Michigan Avenue, Jackson, MI 49201
(517) 788-4335 fax (517) 780-4755



The Jackson County Board of Commissioners appoints individuals to numerous Boards and Commissions. Persons who wish to serve should complete the following information.

NAME: YOUNG LOVE PEGGY C
Last First Middle Initial
HOME ADDRESS: 920 SUNBURST RD JACKSON 49203
Street City Zip Code
TELEPHONE: (517) 783-1309 peyounglove@Comcast.net
Home, Work, Cell, or Business (Include Area Code) E-mail Address

Name of Board(s) or Commission(s) to which Appointment is requested:

1. ADVISORY COUNCIL - DEPT. ON AGING 2. _____ 3. _____

Community Activities/Civic Organization/Boards/Commissions:

Activity/Organization:	Length of Service	Position(s) Held:
<u>REGION II AREA AGENCY ON AGING</u>	<u>2-3 years</u>	<u>CURRENTLY CHAIR</u>
<u>AAUW</u>	<u>2 YEARS</u>	<u>MEMBER</u>
_____	_____	_____

Employment:

RETIRED - FLAGSTAR BANK VICE PRESIDENT - ADMIN. SERVICES APRIL 1988 - MAY 2008
Current Employer: Position: Dates of Employment:

Education:

B.S. MICHIGAN STATE ; M.L.R. MICHIGAN STATE

Please indicate why you are requesting appointment to this Board(s)/Commission(s):

I enjoy working to promote services and information to Seniors. I have been an active member of the council and would like to continue. I have helped with revisions to by-laws, surveys of service recipients and packing shelf stable meals.

Additional Information you feel may be helpful in considering your request for Appointment:

Thirty plus years ago I worked in the Dept on Aging as Assistant to the director for two years. I currently do the bookkeeping for the Friends of the Dept. as a volunteer.

Peggy C Younglove 11/22/11
Signature Date

COUNTY OF JACKSON

REQUEST FOR BOARD OR COMMISSION APPOINTMENT

Mail or personally deliver to: *County of Jackson -- Administrator/Controller's Office -- 6th Floor*
120 West Michigan Avenue, Jackson, MI 49201
(517) 788-4335 FAX (517) 780-4755

The Jackson County Board of Commissioners appoints individuals to numerous Boards and Commissions.
Persons who wish to serve should complete the following information.

NAME: Tripp Gary
Last First, Middle Initial

HOME ADDRESS: 315 Lakeshore Dr Jackson 49203
Street City Zip Code

TELEPHONE: 517-784-9418 g.tripp@sbcglobal.net
Home, Work, Cell, or Business (Include Area Code) E-mail Address

Name of Board(s) or Commission(s) to which Appointment is requested:

1. Department of Aging Advisory Council 2. 3.

Community Activities/Civic Organization/Boards/Commissions:

Activity / Organization:	Length of Service	Position (s) Held:
<u></u>	<u></u>	<u></u>
<u></u>	<u></u>	<u></u>
<u></u>	<u></u>	<u></u>

Employment:

<u>Western & Southern Financial Group</u>	<u>Sales Manager</u>	<u>May 5, 2005 to present</u>
Current Employer:	Position:	Dates of Employment:

Education:

some college

Please indicate why you are requesting appointment to this Board (s) /Commission (s):

Have had extra interest in helping seniors avoid being taken advantage of and hope to provide additional information so they can enjoy their retirement.

Additional Information you feel may be helpful in considering your request for appointment:

Gary Tripp 11/12/2011
Signature: Date:

COUNTY OF JACKSON

REQUEST FOR BOARD OR COMMISSION APPOINTMENT

NOV 18 2011

Mail or personally deliver to: County of Jackson -- Administrator/Controller's Office -- 6th Floor
120 West Michigan Avenue, Jackson, MI 49201
(517) 788-4335 FAX (517) 780-4755

The Jackson County Board of Commissioners appoints individuals to numerous Boards and Commissions.
Persons who wish to serve should complete the following information.

NAME: Spink Patricia J
Last First Middle Initial
HOME ADDRESS: 8537 Folks Road Hanover 49241
Street City Zip Code
TELEPHONE: (517) 563-8951 gpspink@aol.com
Home, Work, Cell, or Business (Include Area Code) E-mail Address

Name of Board(s) or Commission(s) to which Appointment is requested:

Jackson County Department on Aging's
1. Advisory Council on Aging 2. _____ 3. _____

Community Activities/Civic Organization/Boards/Commissions:

Activity / Organization:	Length of Service	Position (s) Held:
<u>Hanover Community Food Pantry</u>	<u>1 1/2 yrs</u>	<u>Food Pantry worker</u>
<u>Hanover Area Historical Society's Organ Museum</u>	<u>Long time volunteer - Board member 1 yr.</u>	<u>Trustee</u>

Employment:

<u>Retired Sept., 2008, from Jackson County Department</u>	<u>Began as Program Developer and ended as Public Relations.</u>	<u>May, 1987 - Sept. 2008</u>
Current Employer: <u>on Aging</u>	Position:	Dates of Employment:

Education:

<u>Hanover Horton High School - 1968</u>	<u>Western Michigan Univ. 1972</u>	<u>University of Michigan 1987</u>
<u>Jackson Community College - 1969</u>	<u>BS in Women's Phys Ed.</u>	<u>Masters in Education</u>
	<u>Minors - Coaching & Health</u>	<u>emphasis in Gerontology</u>
		<u>Specialist in Aging Certificate</u>

Please indicate why you are requesting appointment to this Board (s) /Commission (s): I have always enjoyed working with senior citizens and have worked with them in some capacity for over 30 years. I definitely have their best interest in my heart.

Additional Information you feel may be helpful in considering your request for appointment:

Recommended by Region 2 Area Agency on Aging

Patricia J. Spink

Signature:

November 15, 2011

Date:

Submit

Reset

COUNTY OF JACKSON

REQUEST FOR BOARD OR COMMISSION APPOINTMENT

Mail or personally deliver to: County of Jackson Administrator/Controller's Office- 6th Floor
120 West Michigan Avenue, Jackson, MI 49201
(517) 788-4335 fax (517) 780-4755

The Jackson County Board of Commissioners appoints individuals to numerous Boards and Commissions. Persons who wish to serve should complete the following information.

NAME: ANDERSON WILLIE E.
Last First Middle Initial
HOME ADDRESS: 1817 TYSON ST JACKSON, MI 49203
Street City Zip Code
TELEPHONE: 517-795-2195, 517-414-5811
Home, Work, Cell, or Business (Include Area Code) E-mail Address

Name of Board(s) or Commission(s) to which Appointment is requested:

1. REGION II AREA AGENCY ON AGING 3. _____

Community Activities/Civic Organization/Boards/Commissions:

Activity/Organization:	Length of Service	Position(s) Held:
<u>ENTERPRISE GROUP</u>	<u>5 YEAR</u>	<u>EXECUTIVE BOARD</u>
<u>JACKSON CITY COUNCIL</u>	<u>2 TERMS / 4 YEARS</u>	<u>COUNCILMAN</u>
<u>CROUCH SENIOR CENTER</u>	<u>3 YEARS</u>	<u>ADVISORY COUNCIL</u>

Employment:

<u>RETIRED</u>	<u>N/A</u>	<u>N/A</u>
Current Employer:	Position:	Dates of Employment:

Education:

BS MICHIGAN STATE UNIV / MBA SPRING ARBOR UNIVERSITY

Please indicate why you are requesting appointment to this Board(s)/Commission(s):

To help fill and serve the needs of the senior citizen community of Jackson County, of which I am a member,

Additional Information you feel may be helpful in considering your request for Appointment:

MILITARY / PAST JKN CTY COMMANDER AMERICAN LEGION / 10 YRS. JPD RESERVE OFFICER

[Signature]
Signature

12/4/11
Date

COUNTY OF JACKSON

REQUEST FOR BOARD OR COMMISSION APPOINTMENT

Mail or personally deliver to: County of Jackson Administrator/Controller's Office - 6th Floor
120 West Michigan Avenue, Jackson, MI 49201
(517) 788-4335 fax (517) 780-4755

The Jackson County Board of Commissioners appoints individuals to numerous Boards and Commissions. Persons who wish to serve should complete the following information.

NAME: SEWELL GEORGE H.
Last First Middle Initial

HOME ADDRESS: 2126 CASCADE DR, JACKSON 49203
Street City Zip Code

TELEPHONE: (517) 782-7608
Home, Work, Cell, or Business (Include Area Code) E-mail Address

Name of Board(s) or Commission(s) to which Appointment is requested:

1. Jackson District Library 2. _____ 3. _____

Community Activities/Civic Organization/Boards/Commissions:

Activity/Organization:	Length of Service	Position(s) Held:
<u>SALVATION ARMY</u>	<u>23 yrs</u>	<u>BOARD MEMBER</u>
<u>COMMUNITY ACTION AGENCY</u>	<u>20+ years</u>	<u>BOARD MEMBER</u>
<u>JACKSON DISTRICT LIBRARY</u>	<u>12 years</u>	<u>BOARD MEMBER, Past President</u>

Employment:

RETIRED from Welfare Administrator 1964-1997
Current Employer Position Dates of Employment
State of Michigan

Education:

B.S. - WESTERN MICHIGAN UNIVERSITY

Please indicate why you are requesting appointment to this Board(s)/Commission(s).

I have enjoyed the last 12 years on the JDL Board and I want to help finishing the task of progressing to be a state of the art library system.

Additional Information you feel may be helpful in considering your request for Appointment:

I am a life long Jackson resident and an ardent supporter of the Library.

George Sewell
Signature

11-5-11
Date

COUNTY OF JACKSON

REQUEST FOR BOARD OR COMMISSION APPOINTMENT

Mail or personally deliver to: *County of Jackson -- Administrator/Controller's Office -- 6th Floor*
120 West Michigan Avenue, Jackson, MI 49201
(517) 788-4335 FAX (517) 780-4755

The Jackson County Board of Commissioners appoints individuals to numerous Boards and Commissions.
Persons who wish to serve should complete the following information.

NAME: Steele Sandra
Last First, Middle Initial
HOME ADDRESS: 4037 Erika Drive Pleasant Lake 49272
Street City Zip Code
TELEPHONE: 517-769-3050 Steele24001@yahoo.com
Home, Work, Cell, or Business (Include Area Code) E-mail Address

Name of Board(s) or Commission(s) to which Appointment is requested:

1. Jackson District Library Board 2. _____ 3. _____

Community Activities/Civic Organization/Boards/Commissions:

Activity / Organization:	Length of Service	Position (s) Held:
<u>Michigan Rehabilitation Association</u>	<u>10 years</u>	<u>Committee Chair/Conference Committee</u>
<u>Friends of the Jackson District Library</u>	<u>5 + years</u>	<u>Member</u>
<u>100+ Women Who Care</u>	<u>2 years</u>	<u>Participant</u>

Employment:

<u>Rehabilitation Team Associates</u>	<u>Director/ Vocational Rehabilitation Counselor</u>	<u>1991-Present</u>
Current Employer:	Position:	Dates of Employment:

Education:

Master of Arts - Rehabilitation and Counseling - MSU Bachelor of Science - Education - Ball State University

Please indicate why you are requesting appointment to this Board (s) /Commission (s):

My genuine interest in the library as an invaluable community resource. A vibrant library system not only serves it's citizens. It enhances the community as a whole. I wish to be involved in development and planning activities for this essential service, both as a patron and as a Jackson County Resident.

Additional Information you feel may be helpful in considering your request for appointment:

I follow Library news closely, was engaged in the PR campaign for Library Millage, have attended board meetings to understand the workings of the board and pertinent issues, and have engaged in discussions with current board members concerning my interest in serving.

Sandra K. Steele

Signature:

11/10/2011

Date:

COUNTY OF JACKSON

REQUEST FOR BOARD OR COMMISSION APPOINTMENT

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120 West Michigan Avenue, Jackson, MI 49201
(517) 788-4335 FAX (517) 780-4755

The Jackson County Board of Commissioners appoints individuals to numerous Boards and Commissions.
Persons who wish to serve should complete the following information.

NAME: Carmody Debra
Last First, Middle Initial

HOME ADDRESS: 909 South Thompson Jackson 49203
Street City Zip Code

TELEPHONE: 734-904-8466 - Home or 517-787-7387 - Work sdccarmody@yahoo.com
Home, Work, Cell, or Business (Include Area Code) E-mail Address

Name of Board(s) or Commission(s) to which Appointment is requested:

1. District Library Board 2. Parks Board 3. Any other as appropriate

Community Activities/Civic Organization/Boards/Commissions:

Activity / Organization:	Length of Service	Position (s) Held:
<u>Rotary Club of Jackson</u>	<u>4 years</u>	<u>Member/Public Relations Committee</u>
<u>Harriet A. Myer BPW</u>	<u>4 years</u>	<u>Member/Finance & Audit Committee</u>
<u>Women's Leadership Council</u>	<u>1 year</u>	<u>Member</u>

Employment:

<u>Cascades Humane Society</u>	<u>Executive Director</u>	<u>12/2005 to present</u>
Current Employer:	Position:	Dates of Employment:

Education:

University of Oklahoma - Master of Human Relations/Organizational Development Northeastern University - BA Fine Arts/Communications

Please indicate why you are requesting appointment to this Board (s) /Commission (s):

After living in Jackson for six years, I have a good understanding of our community and believe I can successfully work to address current challenges.

Additional Information you feel may be helpful in considering your request for appointment:

Served on City of Amarillo's Parks Commission, Indiana & Oklahoma Arts Commissions and Oklahoma County Library System's Director of Development

Debra Carmody 11/11/2011
Signature: Date:

COUNTY OF JACKSON

REQUEST FOR BOARD OR COMMISSION APPOINTMENT

Mail or personally deliver to: *County of Jackson -- Administrator/Controller's Office -- 6th Floor*
120 West Michigan Avenue, Jackson, MI 49201
(517) 788-4335 FAX (517) 780-4755

The Jackson County Board of Commissioners appoints individuals to numerous Boards and Commissions.
Persons who wish to serve should complete the following information.

NAME: Widner Albert
Last First, Middle Initial

HOME ADDRESS: 9200 Sears Road Concord 49237
Street City Zip Code

TELEPHONE: (517) 524-6483 awidner11@gmail.com
Home, Work, Cell, or Business (Include Area Code) E-mail Address

Name of Board(s) or Commission(s) to which Appointment is requested:

1. District Library Board 2. 3.

Community Activities/Civic Organization/Boards/Commissions:

Activity / Organization:	Length of Service	Position (s) Held:
<u>Concord Initiative</u>	<u>4 Years</u>	<u>President 2008</u>
<u>MASA Council</u>	<u>2 Years</u>	<u>Region VI Representative (2008-2010)</u>
<u></u>	<u></u>	<u></u>

Employment:

<u>Retired from K-12 Education</u>	<u>Superintendent</u>	<u>Retired 6-30-11</u>
Current Employer:	Position:	Dates of Employment:

Education:

BA Western Michigan 1970, MA Western Michigan University 1981, Education Specialist MSU 1993

Please indicate why you are requesting appointment to this Board (s) /Commission (s):

Appreciate the added of a strong library system to our community

Additional Information you feel may be helpful in considering your request for appointment:

I would like to support and promote the utilization of our county library system

Al Widner
Signature:

11/15/2011
Date:

COUNTY OF JACKSON

REQUEST FOR BOARD OR COMMISSION APPOINTMENT

Mail or personally deliver to: *County of Jackson -- Administrator/Controller's Office -- 6th Floor*
120 West Michigan Avenue, Jackson, MI 49201
(517) 788-4335 FAX (517) 780-4755

The Jackson County Board of Commissioners appoints individuals to numerous Boards and Commissions.
Persons who wish to serve should complete the following information.

NAME: Sinicki Wendy
Last First Middle Initial
HOME ADDRESS: 3099 Carlton Blvd Jackson 49203
Street City Zip Code
TELEPHONE: 517-769-4080 wsinicki@gmail.com
Home, Work, Cell, or Business (Include Area Code) E-mail Address

Name of Board(s) or Commission(s) to which Appointment is requested:

1. Library Board 2. 3.

Community Activities/Civic Organization/Boards/Commissions:

Activity / Organization:	Length of Service	Position (s) Held:
Fremont Coop Preschool	3 years	Co-president
St. Michael Cathlic School	6 years	Chairperson, vice chair

Employment:

Bake College Instructor	self employed writer/author	In Jackson since September, prior in Muskegon
Current Employer:	Position:	Dates of Employment:

Education:

Bachelor's of Fine Arts in Journalism from Central Michigan University

Please indicate why you are requesting appointment to this Board (s) /Commission (s):

I was involved in the Library in Fremont when my children were small and enjoyed it. Libraries are struggling and would like to do what I could.

Additional Information you feel may be helpful in considering your request for appointment:

I just moved to the community and would like to contribute.

Wendy Sinicki
Signature:

11/23/2011
Date:

COUNTY OF JACKSON

REQUEST FOR BOARD OR COMMISSION APPOINTMENT



Mail or personally deliver to: County of Jackson Administrator/Controller's Office - 6th Floor
120 West Michigan Avenue, Jackson, MI 49201
(517) 788-4335 fax (517) 780-4755

The Jackson County Board of Commissioners appoints individuals to numerous Boards and Commissions. Persons who wish to serve should complete the following information.

NAME: HENSON EMANUEL C
Last First Middle Initial
HOME ADDRESS: 508 No. FRANCIS ST #4 JACKSON MI 49201
Street City Zip Code
TELEPHONE: 1-517-914-7851 C/Vm SNOWM0224@gmail.com
Home, Work, Cell, or Business (Include Area Code) E-mail Address

Name of Board(s) or Commission(s) to which Appointment is requested:

1. FAIR BOARD 2. DISTRICT LIBRARY BOARD 3. _____

Community Activities/Civic Organization/Boards/Commissions:

Activity/Organization:	Length of Service	Position(s) Held:
<u>US ARMY VETERAN</u>	<u>1979-1985</u>	<u>Infantry/Airborne/special ops</u>
<u>25+ YEARS RESTAURANT EXPERIENCE</u>	<u>1990 - 2009</u>	<u>CHef/manager/Kitchen staff</u>

Employment:

Current Employer:	Position:	Dates of Employment:
<u>UNEMPLOYED</u>		

Education:

HILLSDALE HIGH SCHOOL / DIPLOMA UNIVERSITY OF MICHIGAN / HUMAN RELATIONS MICHIGAN STATE UNIV - + LEADERSHIP ^{GOVERNMENT}

Please indicate why you are requesting appointment to this Board(s)/Commission(s):

if Appointed I would hope to learn and continue the mission of each district Applied for, to Help them grow and change in the future challenges, to become an Advocate for either one or both

Additional Information you feel may be helpful in considering your request for Appointment:

I am quiet, Patient and Generally a good listener, I listen to both sides, team leader, and building skills

Emanuel C. Henson

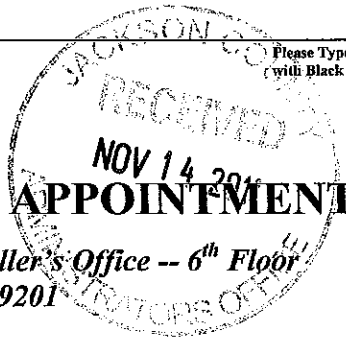
Signature

11/27/11

Date

COUNTY OF JACKSON

REQUEST FOR BOARD OR COMMISSION APPOINTMENT



Mail or personally deliver to: **County of Jackson -- Administrator/Controller's Office -- 6th Floor**
120 West Michigan Avenue, Jackson, MI 49201
(517) 788-4335 FAX (517) 780-4755

The Jackson County Board of Commissioners appoints individuals to numerous Boards and Commissions.
Persons who wish to serve should complete the following information.

NAME: Sears Jill C
Last First, Middle Initial

HOME ADDRESS: 6701 Reynolds Road Horton 49246
Street City Zip Code

TELEPHONE: 517-563-2460 searsjill@frontier.com
Home, Work, Cell, or Business (Include Area Code) E-mail Address

Name of Board(s) or Commission(s) to which Appointment is requested:

1. Jackson County Fair Board 2. _____ 3. _____

Community Activities/Civic Organization/Boards/Commissions:

Activity / Organization:	Length of Service	Position (s) Held:
<u>Michigan Beef Check Off Board</u>	<u>2 years</u>	<u>Director</u>
<u>Farm Bureau Board</u>	<u>5 years</u>	<u>Membership Chairmen</u>
<u>Greenstone (Farm Credit Service)</u>	<u>13 years</u>	<u>Director</u>

Employment:

<u>Sears Farm (Self)</u>	<u>Owner/Marketing</u>	<u>Current</u>
<small>Current Employer:</small>	<small>Position:</small>	<small>Dates of Employment:</small>

Education:

Hanover Horton High School 1977

Please indicate why you are requesting appointment to this Board (s) /Commission (s):

I feel that I would work well with others to ensure that the Jackson County Fair will be a success for years to come.

Additional Information you feel may be helpful in considering your request for appointment:

After the experience our children had showing cattle, I would love to guarantee the same experience for my grandkids.

Jill Sears Jill Sears
Signature:

November 10, 2011
Date:

Submit

Reset

COUNTY OF JACKSON

REQUEST FOR BOARD OR COMMISSION APPOINTMENT

Mail or personally deliver to: County of Jackson Administrator/Controller's Office- 6th Floor
120 West Michigan Avenue, Jackson, MI 49201
(517) 788-4335 fax (517) 780-4755

The Jackson County Board of Commissioners appoints individuals to numerous Boards and Commissions. Persons who wish to serve should complete the following information.

NAME: Rosenberger Philip J
Last First Middle Initial

HOME ADDRESS: 110 S. Durand St. Jackson 49203
Street City Zip Code

TELEPHONE: 517 782-3050 Cell 740-1110 philip_rosenberger@att.net
Home, Work, Cell, or Business (Include Area Code) E-mail Address

Name of Board(s) or Commission(s) to which Appointment is requested:

1. Fair Board 2. _____ 3. _____

Community Activities/Civic Organization/Boards/Commissions:

Activity/Organization:	Length of Service	Position(s) Held:
<u>American Legion Post 29</u>	<u>60 yrs+</u>	<u>Twice Commander</u>
<u>Military Order Purple Heart</u>	<u>20 yrs</u>	<u>Current Commander</u>
<u>Motor Carrier Officer State of Mich</u>	<u>31 Yrs</u>	<u>10/50 3/82</u>

Employment:

Retired active @ Post 29
Current Employer: Position: Dates of Employment:

Education:

Highschool Various Training Schools and programs

Please indicate why you are requesting appointment to this Board(s)/Commission(s):

Have attended, worked various booths for many years, would like to be involved in it

Additional Information you feel may be helpful in considering your request for Appointment:

Have exhibited, Photography, worked, BigBro/Sisters booths, Veterans Organ.

Philip Rosenberger

Signature

11/17/11

Date

COUNTY OF JACKSON

REQUEST FOR BOARD OR COMMISSION APPOINTMENT

Mail or personally deliver to: *County of Jackson -- Administrator/Controller's Office -- 6th Floor*
120 West Michigan Avenue, Jackson, MI 49201
(517) 788-4335 FAX (517) 780-4755

The Jackson County Board of Commissioners appoints individuals to numerous Boards and Commissions.
Persons who wish to serve should complete the following information.

NAME: Loik Paul
Last First, Middle Initial

HOME ADDRESS: 4004 Trumble Jackson 49201
Street City Zip Code

TELEPHONE: 517-917-3456 ploik@umich.edu
Home, Work, Cell, or Business (Include Area Code) E-mail Address

Name of Board(s) or Commission(s) to which Appointment is requested:

1. County Fair Board 2. Region 2 Planning 3. Parks Board

Community Activities/Civic Organization/Boards/Commissions:

Activity / Organization:	Length of Service	Position (s) Held:
<u>Michigan Society for Respiratory Care</u>	<u>1989 - Present</u>	<u>Many, including 3 terms of President</u>
<u>Jackson County 4-H Foundation</u>	<u>2010 - Present</u>	<u>Trustee</u>
<u>Boy Scouts of America</u>	<u>1973-1983</u>	<u>Scout, Teen leader and Adult leader</u>

Employment:

<u>University of Michigan Hospitals</u>	<u>Senior Clinical Specialist</u>	<u>5/1/89 - present</u>
Current Employer:	Position:	Dates of Employment:

Education:

Associates in Liberal Arts Associates in Biology Associates in Respiratory Care

Please indicate why you are requesting appointment to this Board (s) /Commission (s):

I have always been interested in public service. I am interested in serving my community. I believe it is a citizen's responsibility to try and help improve their community.

Additional Information you feel may be helpful in considering your request for appointment:

I believe my work experience, along with the voluntary organizations I belong to have provided me with valuable group skills. I am hard working, and willing to serve on any board where I can help my community.

Paul Loik 11/22/2011
Signature: Date:

COUNTY OF JACKSON

REQUEST FOR BOARD OR COMMISSION APPOINTMENT

Mail or personally deliver to: *County of Jackson -- Administrator/Controller's Office -- 6th Floor*
120 West Michigan Avenue, Jackson, MI 49201
(517) 788-4335 FAX (517) 780-4755

The Jackson County Board of Commissioners appoints individuals to numerous Boards and Commissions.
Persons who wish to serve should complete the following information.

NAME: THOMAS JOHN
Last First, Middle Initial
HOME ADDRESS: 3409 NORTHLANDS JACKSON 49201
Street City Zip Code
TELEPHONE: 517-788-4345 mthomas@blackmantwp.com
Home, Work, Cell, or Business (Include Area Code) E-mail Address

Name of Board(s) or Commission(s) to which Appointment is requested:

1. FAIR BOARD 2. 3.

Community Activities/Civic Organization/Boards/Commissions:

Activity / Organization:	Length of Service	Position (s) Held:
BLACKMAN TOWNSHIP	8 YEARS	CLERK
PUBLIC SAFETY COMMITTEE	8 YEARS	
BLACKMAN TWP.	12 YEARS	TRUSTEE

Employment:

RETIRED	ADT SECURITY GENERAL MGR.	24 YEARS
Current Employer:	Position:	Dates of Employment:

Education:

2 YEARS COLLEGE

Please indicate why you are requesting appointment to this Board (s) /Commission (s):

HAVE ATTENDED JACKSON COUNTY FAIR FOR OVER 60 YEARS, SEE A NEED FOR MORE TOTAL COMMUNITY INVOLVEMENT.

Additional Information you feel may be helpful in considering your request for appointment:

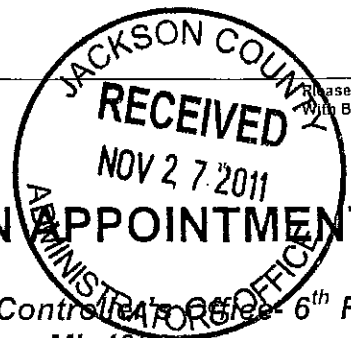
PAST GOVERNMENT EXPERIENCE, AS WELL AS SERVING ON NUMEROUS OTHER COMMITTEES WHILE WORKING.

JOHN (MIKE) THOMAS

Signature:

11/14/2011

Date:



COUNTY OF JACKSON

REQUEST FOR BOARD OR COMMISSION APPOINTMENT

Mail or personally deliver to: County of Jackson Administrator/Controller's Office - 6th Floor
120 West Michigan Avenue, Jackson, MI 49201
(517) 788-4335 fax (517) 780-4755

The Jackson County Board of Commissioners appoints individuals to numerous Boards and Commissions. Persons who wish to serve should complete the following information.

NAME: HEMSON EMANUEL C
Last First Middle Initial
HOME ADDRESS: 508 NO. FRANCIS ST #4 JACKSON MI 49201
Street City Zip Code
TELEPHONE: 1-517-914-7851 C/VM SN6Wm022Y@gmail.com
Home, Work, Cell, or Business (Include Area Code) E-mail Address

Name of Board(s) or Commission(s) to which Appointment is requested:

1. FAIR BOARD 2. DISTRICT LIBRARY BOARD 3. _____

Community Activities/Civic Organization/Boards/Commissions:

Activity/Organization:	Length of Service	Position(s) Held:
<u>US ARMY VETERAN</u>	<u>1979-1985</u>	<u>Infantry/Airborne/Special Ops</u>
<u>25+ YEARS RESTAURANT EXPERIENCE</u>	<u>1990 - 2009</u>	<u>CHIEF/MANAGER/KITCHEN STAFF</u>
_____	_____	_____

Employment:

UNEMPLOYED _____
Current Employer: Position: Dates of Employment:

Education:

HILLSDALE HIGH SCHOOL / DIPLOMA UNIVERSITY OF MARYLAND / HUMAN RELATIONS MICHIGAN STATE UNIV - + GOVERNMENT LEADERSHIP

Please indicate why you are requesting appointment to this Board(s)/Commission(s):

if APPOINTED I would hope to learn and continue the mission of each interest applied for, to help them grow and change in the future challenges, to become an ADVOCATE for either one or both

Additional Information you feel may be helpful in considering your request for Appointment:

I am quiet, patient and generally a good listener, and listen to both sides, team leader, and building skills

Emanuel C. Hemson
Signature

11/27/11
Date

COUNTY OF JACKSON

REQUEST FOR BOARD OR COMMISSION APPOINTMENT

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120 West Michigan Avenue, Jackson, MI 49201
(517) 788-4335 FAX (517) 780-4755

The Jackson County Board of Commissioners appoints individuals to numerous Boards and Commissions.
Persons who wish to serve should complete the following information.

NAME: Klaxon Nyan
Last First, Middle Initial

HOME ADDRESS: 6211 Penny Lane Jackson 49201
Street City Zip Code

TELEPHONE: 517-937-1840 Cell nyanklaxon@gmail.com
Home, Work, Cell, or Business (Include Area Code) E-mail Address

Name of Board(s) or Commission(s) to which Appointment is requested:

1. Fair Board 2. Region 2 Planning Commission 3.

Community Activities/Civic Organization/Boards/Commissions:

Activity / Organization:	Length of Service	Position (s) Held:
<u></u>	<u></u>	<u></u>
<u></u>	<u></u>	<u></u>
<u></u>	<u></u>	<u></u>

Employment:

<u>State of Michigan</u>	<u>Trades Instructor</u>	<u>1988 to Present</u>
Current Employer:	Position:	Dates of Employment:

Education:

Bachelor of Business

Please indicate why you are requesting appointment to this Board (s) /Commission (s):

I am nearing retirement and would like to become more active in the community. I have a business here and I am a licensed realtor.

Additional Information you feel may be helpful in considering your request for appointment:

I have been active participant in the Jackson Fair since I was 8 years old. I love the fair and am always excited about its future growth.

Nyan Klaxon
Signature:

11/22/2011
Date:

COUNTY OF JACKSON

REQUEST FOR BOARD OR COMMISSION APPOINTMENT

Mail or personally deliver to: *County of Jackson -- Administrator/Controller's Office -- 6th Floor*
120 West Michigan Avenue, Jackson, MI 49201
(517) 788-4335 FAX (517) 780-4755

The Jackson County Board of Commissioners appoints individuals to numerous Boards and Commissions.
Persons who wish to serve should complete the following information.

NAME: COFFMAN KAREN
Last First, Middle Initial

HOME ADDRESS: 2157 GANTON JACKSON 49203
Street City Zip Code

TELEPHONE: 517-787-0842; 517-768-6728; 517-812-4697 kcoffman@co.jackson.mi.us
Home, Work, Cell, or Business (Include Area Code) E-mail Address

Name of Board(s) or Commission(s) to which Appointment is requested:

1. Hospital Finance Authority Board 2. 3.

Community Activities/Civic Organization/Boards/Commissions:

Activity / Organization:	Length of Service	Position (s) Held:
<u>Jackson County Building Authority</u>	<u>3 years</u>	<u>Treasurer</u>
<u>Jackson County Land Bank Authority</u>	<u>3 years</u>	<u>Chair</u>
<u>Non Profit Network Board</u>	<u>2 year</u>	<u>Board member</u>

Employment:

<u>Jackson County Treasurers office</u>	<u>Jackson County Treasurer</u>	<u>01-01-2009 - Present</u>
Current Employer:	Position:	Dates of Employment:

Education:

Masters of Public Administration, Western Michigan University

Please indicate why you are requesting appointment to this Board (s) /Commission (s):

In my position as County Treasurer, I am knowledgeable about investments, bonding and public finance.

Additional Information you feel may be helpful in considering your request for appointment:

Karen Coffman
Signature:

10/24/2011
Date:

Please Type or Print
With Black Ballpoint

Please Type or Print
With Black Ballpoint

OCT 31 2011

COUNTY OF JACKSON REQUEST FOR BOARD OR COMMISSION APPOINTMENT

Mail or personally deliver to: *County of Jackson Administrator/Controller's Office*
120 West Michigan Avenue, Jackson, MI 49201

The Jackson County Board of Commissioners appoints individuals to numerous Boards and Commissions. Persons who wish to serve should complete the following information.

NAME: Samon Anthony J
Last First Middle Initial

ADDRESS: 4311 Donnelly Road Jackson 49201
Street City Zip Code

TELEPHONE: (517)937-7103 (517)784-4800
Home (Include Area Code) Work or Business (Include Area Code)

Name of Board(s) or Commission(s) to which Appointment is requested:

1. Hospital Finance Authority

2. _____

3. _____

Community Activities/Civic Organization/Boards/Commissions:

Activity/Organization:

Length of Member

Position(s) Held:

Building Authority

11 years

Chairman, Treasurer, Secretary

Hospital Finance Authority

4 year

Secretary

Employment:

Community Action Agency

Chief Financial Officer

January 2002 - Present

Current Employer:

Position:

Dates of Employment:

Education:

Eastern Michigan University - BBA, Major in Accounting, Certified Public Accountant, Member AICPA, MACPA

Please indicate why you are requesting appointment to this Board/Commission:

I hope to continue to work on the important projects ahead of the Hospital Finance Authority using my experience working in the municipal finance and business. I am aware of the severe financial constraints facing all municipalities and feel the County will have a significant benefit from using my expertise.

Additional Information you feel may be helpful in considering your request for Appointment:

Anthony J Samon
Signature:

10/26/11
Date:

COUNTY OF JACKSON

REQUEST FOR BOARD OR COMMISSION APPOINTMENT

Mail or personally deliver to: *County of Jackson -- Administrator/Controller's Office -- 6th Floor*
120 West Michigan Avenue, Jackson, MI 49201
(517) 788-4335 FAX (517) 780-4755

The Jackson County Board of Commissioners appoints individuals to numerous Boards and Commissions.
Persons who wish to serve should complete the following information.

NAME: Valente Jason
Last First, Middle Initial
HOME ADDRESS: 1115 Park Road Jackson 49203
Street City Zip Code
TELEPHONE: 517-787-0244 jason@valenteholdings.com
Home, Work, Cell, or Business (Include Area Code) E-mail Address

Name of Board(s) or Commission(s) to which Appointment is requested:

1. Hospital Finance Authority 2. 3.

Community Activities/Civic Organization/Boards/Commissions:

Activity / Organization:	Length of Service	Position (s) Held:
Hospital Finance Authority & County Parks Commission	2010- Present	Board Member & Commissioner
disAbility Connections Foundation	2008-Present	President & Chairman of the Board
United Way of Jackson County	2009-2011	Board Member

Employment:

Jackson Community College	Executive Director for Institutional Advancement	2008-Present
Current Employer:	Position:	Dates of Employment:

Education:

MS in Organizational Development (Concordia University-Ann Arbor) & BA Finance, Management & Sociology (Concordia College- Ann Arbor).

Please indicate why you are requesting appointment to this Board (s) /Commission (s):

I am a current member of the committee. I have relevant experience in non-profit finance, bond financing, site and structural development, commercial renovation/new construction, leasing arrangements, as well as hospital operations.

Additional Information you feel may be helpful in considering your request for appointment:

I have a desire to assist our county in providing sustainable world class health care as well as steward existing and future initiatives.

Jason H. Valente
Signature:

11/17/2011
Date:

COUNTY OF JACKSON

REQUEST FOR BOARD OR COMMISSION APPOINTMENT

Mail or personally deliver to: *County of Jackson -- Administrator/Controller's Office -- 6th Floor*
120 West Michigan Avenue, Jackson, MI 49201
(517) 788-4335 FAX (517) 780-4755

The Jackson County Board of Commissioners appoints individuals to numerous Boards and Commissions.
Persons who wish to serve should complete the following information.

NAME: Lindsay Oliver
Last First Middle Initial

HOME ADDRESS: 192 Olcott Lake Drive Jackson 49201
Street City Zip Code

TELEPHONE: Cell 517-937-4989, Work 517-780-3780 oliver.lindsay@jacksontransit.com
Home, Work, Cell, or Business (Include Area Code) E-mail Address

Name of Board(s) or Commission(s) to which Appointment is requested:

1. Hospital Finance Authority 2. _____ 3. _____

Community Activities/Civic Organization/Boards/Commissions:

Activity / Organization:	Length of Service	Position (s) Held:
_____	_____	_____
_____	_____	_____
_____	_____	_____

Employment:

<u>Jackson Transportation Authority</u>	<u>Administrative Director</u>	<u>2003 until present</u>
<small>Current Employer:</small>	<small>Position:</small>	<small>Dates of Employment:</small>

Education:

MBA 2001 Wayne State University, BBA 1984 University of Michigan

Please indicate why you are requesting appointment to this Board (s) /Commission (s):

To volunteer my services to the community and this organization and my skill set seem to be compatible.

Additional Information you feel may be helpful in considering your request for appointment:

My education is based in business and finance, and work experience has dealt with governmental financing and funding.

O.J.Lindsay 11/16/2011
Signature: Date:

COUNTY OF JACKSON

REQUEST FOR BOARD OR COMMISSION APPOINTMENT

Mail or personally deliver to: *County of Jackson -- Administrator/Controller's Office -- 6th Floor*
120 West Michigan Avenue, Jackson, MI 49201
(517) 788-4335 FAX (517) 780-4755

The Jackson County Board of Commissioners appoints individuals to numerous Boards and Commissions.
Persons who wish to serve should complete the following information.

NAME: DuBois Robert D.
Last First Middle Initial
HOME ADDRESS: 116 Sagamore Street Jackson 49203
Street City Zip Code
TELEPHONE: 517-782-5671 bg-dubois@sbcglobal.net
Home, Work, Cell, or Business (Include Area Code) E-mail Address

Name of Board(s) or Commission(s) to which Appointment is requested:

1. Parks Commission 2. 3.

Community Activities/Civic Organization/Boards/Commissions:

Activity / Organization:	Length of Service	Position (s) Held:
Summit Township	12 years	Clerk & Trustee
Jackson Host Lions	35 years	Member & Past President
Vista Grand Villa Board	2 years	Member

Employment:

Retired
Current Employer: Position: Dates of Employment:

Education:

Masters -- University of Michigan

Please indicate why you are requesting appointment to this Board (s) /Commission (s):

Interest in community and working with the Parks commission

Additional Information you feel may be helpful in considering your request for appointment:

Been active in the community for many years.

Robert D. DuBois
Signature:

November 22, 2011
Date:

Submit

Reset

COUNTY OF JACKSON

REQUEST FOR BOARD OR COMMISSION APPOINTMENT

Mail or personally deliver to: *County of Jackson -- Administrator/Controller's Office -- 6th Floor*
120 West Michigan Avenue, Jackson, MI 49201
(517) 788-4335 FAX (517) 780-4755

The Jackson County Board of Commissioners appoints individuals to numerous Boards and Commissions.
Persons who wish to serve should complete the following information.

NAME: Rusnell David
Last First, Middle Initial

HOME ADDRESS: 1415 Carlton Blvd. Jackson 49203
Street City Zip Code

TELEPHONE: 517 787-7815 drusnell@cavtel.net
Home, Work, Cell, or Business (Include Area Code) E-mail Address

Name of Board(s) or Commission(s) to which Appointment is requested:

1. Parks Board 2. 3.

Community Activities/Civic Organization/Boards/Commissions:

Activity / Organization:	Length of Service	Position (s) Held:
<u>Boy Scouts of America</u>	<u>20 years</u>	<u>Scout Master, Committee Chairman, +</u>
<u>National Ski Patrol System</u>	<u>20 years</u>	<u>Patroller</u>
<u></u>	<u></u>	<u></u>

Employment:

<u>DaimlerChrysler</u>	<u>Facilities Engineer, Environmental Mgr</u>	<u>1976 to 2007 (retired)</u>
Current Employer:	Position:	Dates of Employment:

Education:

M.S. School of Public Health, Univ. of Michigan; B.S. Alma College

Please indicate why you are requesting appointment to this Board (s) /Commission (s):

Enjoyed use of parks past 34 years.

Additional Information you feel may be helpful in considering your request for appointment:

Experience with managing environmental concerns of a large 3800 acre property

DCRusnell

Signature:

11/10/2011

Date:

COUNTY OF JACKSON

REQUEST FOR BOARD OR COMMISSION APPOINTMENT

Mail or personally deliver to: *County of Jackson -- Administrator/Controller's Office -- 6th Floor*
120 West Michigan Avenue, Jackson, MI 49201
(517) 788-4335 FAX (517) 780-4755

The Jackson County Board of Commissioners appoints individuals to numerous Boards and Commissions.
Persons who wish to serve should complete the following information.

NAME: Carmody Debra
Last First, Middle Initial

HOME ADDRESS: 909 South Thompson Jackson 49203
Street City Zip Code

TELEPHONE: 734-904-8466 - Home or 517-787-7387 - Work sdccarmody@yahoo.com
Home, Work, Cell, or Business (Include Area Code) E-mail Address

Name of Board(s) or Commission(s) to which Appointment is requested:

1. District Library Board 2. Parks Board 3. Any other as appropriate

Community Activities/Civic Organization/Boards/Commissions:

Activity / Organization:	Length of Service	Position (s) Held:
<u>Rotary Club of Jackson</u>	<u>4 years</u>	<u>Member/Public Relations Committee</u>
<u>Harriet A. Myer BPW</u>	<u>4 years</u>	<u>Member/Finance & Audit Committee</u>
<u>Women's Leadership Council</u>	<u>1 year</u>	<u>Member</u>

Employment:

<u>Cascades Humane Society</u>	<u>Executive Director</u>	<u>12/2005 to present</u>
Current Employer:	Position:	Dates of Employment:

Education:

University of Oklahoma - Master of Human Relations/Organizational Development Northeastern University - BA Fine Arts/Communications

Please indicate why you are requesting appointment to this Board (s) /Commission (s):

After living in Jackson for six years, I have a good understanding of our community and believe I can successfully work to address current challenges.

Additional Information you feel may be helpful in considering your request for appointment:

Served on City of Amarillo's Parks Commission, Indiana & Oklahoma Arts Commissions and Oklahoma County Library System's Director of Development

Debra Carmody
Signature:

11/11/2011
Date:

COUNTY OF JACKSON

REQUEST FOR BOARD OR COMMISSION APPOINTMENT

Mail or personally deliver to: *County of Jackson -- Administrator/Controller's Office -- 6th Floor*
120 West Michigan Avenue, Jackson, MI 49201
(517) 788-4335 FAX (517) 780-4755

The Jackson County Board of Commissioners appoints individuals to numerous Boards and Commissions.
Persons who wish to serve should complete the following information.

NAME: Parker Benjamin
Last First, Middle Initial
HOME ADDRESS: 1004 S Durand St Jackson 49203
Street City Zip Code
TELEPHONE: 517-292-6773 bparker1597@gmail.com
Home, Work, Cell, or Business (Include Area Code) E-mail Address

Name of Board(s) or Commission(s) to which Appointment is requested:

1. Traffic Safety Commission 2. Parks Board 3.

Community Activities/Civic Organization/Boards/Commissions:

Activity / Organization:	Length of Service	Position (s) Held:
<u>Spring Arbor Fire Department</u>	<u>7 Years</u>	<u>Firefighter/EMT</u>
<u>American Red Cross</u>	<u>3 Years</u>	<u>Instructor, CPR First Aid</u>
<u></u>	<u></u>	<u></u>

Employment:

<u>Jackson County Sheriffs Department</u>	<u>911 Dispatcher</u>	<u>03/2011 - Present</u>
Current Employer:	Position:	Dates of Employment:

Education:

Bachelor of Arts, Spring Arbor University, 2002

Please indicate why you are requesting appointment to this Board (s) /Commission (s):

I would enjoy being involved with decisions that affect the safety of motorists on our roadways in Jackson County.

Additional Information you feel may be helpful in considering your request for appointment:

Ben Parker

Signature:

11/12/2011

Date:

COUNTY OF JACKSON

REQUEST FOR BOARD OR COMMISSION APPOINTMENT

Mail or personally deliver to: *County of Jackson -- Administrator/Controller's Office -- 6th Floor*
120 West Michigan Avenue, Jackson, MI 49201
(517) 788-4335 FAX (517) 780-4755

The Jackson County Board of Commissioners appoints individuals to numerous Boards and Commissions.
Persons who wish to serve should complete the following information.

NAME: Mills Rodney
Last First Middle Initial
HOME ADDRESS: 2715 Forest Lake Jackson 49203
Street City Zip Code
TELEPHONE: HOME 517-782-7539 Cell 517-202-0450 ramroddigdirt@hotmail.com
Home, Work, Cell, or Business (Include Area Code) E-mail Address

Name of Board(s) or Commission(s) to which Appointment is requested:

1. Jackson County Road Commission 2. Board of Public Works 3. Parks Board

Community Activities/Civic Organization/Boards/Commissions:

Activity / Organization:	Length of Service	Position (s) Held:
<u>Lions Club North Jackson</u>	<u>35 Years</u>	<u>Pres. Treas. Zone Chairman</u>
<u>Ella Sharp Member and vollunteer</u>	<u></u>	<u></u>
<u></u>	<u></u>	<u></u>

Employment:

<u>Retired</u>	<u>Former part owner Mills Exc.</u>	<u></u>
Current Employer:	Position:	Dates of Employment:

Education:

High School 1Year JCC

Please indicate why you are requesting appointment to this Board (s) /Commission (s):

Retired and have more time and I belive I have experiance that could benifit any ome of these appointments.

Additional Information you feel may be helpful in considering your request for appointment:

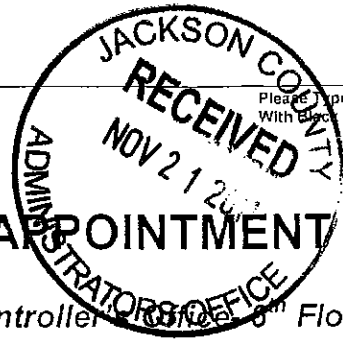
I have been involved with Jackson County both work and social for over 50 years and would like to give a little time and effort back.

Rodney D Mills
Signature:

11/13/2011
Date:

COUNTY OF JACKSON

REQUEST FOR BOARD OR COMMISSION APPOINTMENT



Mail or personally deliver to: County of Jackson Administrator/Controller, 3rd Floor
120 West Michigan Avenue, Jackson, MI 49201
(517) 788-4335 fax (517) 780-4755

The Jackson County Board of Commissioners appoints individuals to numerous Boards and Commissions. Persons who wish to serve should complete the following information.

NAME: Peterson Edward D
Last First Middle Initial
HOME ADDRESS: 10249 Tims Lake Blvd. Grass Lake 49240
Street City Zip Code
TELEPHONE: 517 522-4021 edpeterse@live.com
Home, Work, Cell, or Business (Include Area Code) E-mail Address

Name of Board(s) or Commission(s) to which Appointment is requested:

County Parks Commission 2. _____ 3. _____

Community Activities/Civic Organization/Boards/Commissions:

Activity/Organization:	Length of Service	Position(s) Held:
<u>Human Relations Com</u>	<u>12 years</u>	<u>committee chair</u>
<u>Revive the Pride committee</u>	<u>4 years</u>	<u>education</u>
<u>Cascades School PTA</u>	<u>6 years</u>	<u>fund raising</u>

Employment:

Jackson Public Schools Retired Principal 1991-2010
Current Employer: Position: Dates of Employment:

Education:

MSU 1967 Oakland University 1974 U of M 1987

Please indicate why you are requesting appointment to this Board(s)/Commission(s):

I am passionate about Jackson County's Parks. I want to help promote and preserve them.

Additional Information you feel may be helpful in considering your request for Appointment:

I am experienced in helping educators make better use of our parks.

Edward Peterson
Signature

Nov. 21, 2011
Date

COUNTY OF JACKSON

REQUEST FOR BOARD OR COMMISSION APPOINTMENT

Mail or personally deliver to: *County of Jackson -- Administrator/Controller's Office -- 6th Floor*
120 West Michigan Avenue, Jackson, MI 49201
(517) 788-4335 FAX (517) 780-4755

The Jackson County Board of Commissioners appoints individuals to numerous Boards and Commissions.
Persons who wish to serve should complete the following information.

NAME: Loik Paul
Last First, Middle Initial

HOME ADDRESS: 4004 Trumble Jackson 49201
Street City Zip Code

TELEPHONE: 517-917-3456 ploik@umich.edu
Home, Work, Cell, or Business (Include Area Code) E-mail Address

Name of Board(s) or Commission(s) to which Appointment is requested:

1. County Fair Board 2. Region 2 Planning 3. Parks Board

Community Activities/Civic Organization/Boards/Commissions:

Activity / Organization:	Length of Service	Position (s) Held:
<u>Michigan Society for Respiratory Care</u>	<u>1989 - Present</u>	<u>Many, Including 3 terms of President</u>
<u>Jackson County 4-H Foundation</u>	<u>2010 - Present</u>	<u>Trustee</u>
<u>Boy Scouts of America</u>	<u>1973-1983</u>	<u>Scout, Teen leader and Adult leader</u>

Employment:

<u>University of Michigan Hospitals</u>	<u>Senior Clinical Specialist</u>	<u>5/1/89 - present</u>
Current Employer:	Position:	Dates of Employment:

Education:

Associates in Liberal Arts Associates in Biology Associates in Respiratory Care

Please indicate why you are requesting appointment to this Board (s) /Commission (s):

I have always been interested in public service. I am interested in serving my community. I believe it is a citizen's responsibility to try and help improve their community.

Additional Information you feel may be helpful in considering your request for appointment:

I believe my work experience, along with the voluntary organizations I belong to have provided me with valuable group skills. I am hard working , and willing to serve on any board where I can help my community.

Paul Loik
Signature:

11/22/2011
Date:

COUNTY OF JACKSON

REQUEST FOR BOARD OR COMMISSION APPOINTMENT

Mail or personally deliver to: *County of Jackson -- Administrator/Controller's Office -- 6th Floor*
120 West Michigan Avenue, Jackson, MI 49201
(517) 788-4335 FAX (517) 780-4755

The Jackson County Board of Commissioners appoints individuals to numerous Boards and Commissions.
Persons who wish to serve should complete the following information.

NAME: Gibbs _____ Colleen _____
Last First, Middle Initial
HOME ADDRESS: 6589 Lorrie Drive _____ Spring Arbor _____ 49283
Street City Zip Code
TELEPHONE: 517-9378207 or 517-7504123 _____ colleen4442@comcast.net
Home, Work, Cell, or Business (Include Area Code) E-mail Address

Name of Board(s) or Commission(s) to which Appointment is requested:

1. Parks _____ 2. _____ 3. _____

Community Activities/Civic Organization/Boards/Commissions:

Activity / Organization:	Length of Service	Position (s) Held:
Spring Arbor Twp	Two Years	Parks Committee
Spring Arbor Twp	Two Years	Sewer and Water Committee
Western Schools-Bean	Two Years	PTA Treasurer

Employment:

Spring Arbor Twp	Treasurer	January 2009
Current Employer:	Position:	Dates of Employment:

Education:

Lincoln Park High School, Henry Ford Community College, Detroit Business Institute

Please indicate why you are requesting appointment to this Board (s) /Commission (s):

I would like to have a more active role in the development and maintenance of parks in Jackson County.

Additional Information you feel may be helpful in considering your request for appointment:

Colleen Gibbs _____ 11/14/2011
Signature: Date:

COUNTY OF JACKSON

REQUEST FOR BOARD OR COMMISSION APPOINTMENT

Mail or personally deliver to: *County of Jackson -- Administrator/Controller's Office -- 6th Floor*
120 West Michigan Avenue, Jackson, MI 49201
(517) 788-4335 FAX (517) 780-4755

The Jackson County Board of Commissioners appoints individuals to numerous Boards and Commissions.
Persons who wish to serve should complete the following information.

NAME: Brown Larry
Last First Middle Initial
HOME ADDRESS: 411 Richard St Spring Arbor 49283
Street City Zip Code
TELEPHONE: 1-517-745-6113 (Cell) 1-517-750-6762 (Work) larryb@arbor.edu or brownie2053@comcast.net
Home, Work, Cell, or Business (Include Area Code) E-mail Address

Name of Board(s) or Commission(s) to which Appointment is requested:

1. Parks Board 2. 3.

Community Activities/Civic Organization/Boards/Commissions:

Activity / Organization:	Length of Service	Position (s) Held:
<u>Jackson American Heart Association</u>	<u>1 year</u>	<u>Past Liason for Jackson Corrections (Board Member)</u>
<u>Nutritional Committee (Western Schools)</u>	<u>1 year</u>	<u>Past Committee member</u>
<u>MHSAA State Tennis Committee</u>	<u>2 years</u>	<u>Current Committee Member</u>

Employment:

<u>Spring Arbor University</u>	<u>Director and Allilate Professor of Recreation Management</u>	<u>2001 FALL UNTIL PRESENT</u>
Current Employer:	Position:	Dates of Employment:

Education:

BA degree with major in Physical Education and Biology from Spring Arbor College in 1978 and Masters Degree in Education from Spring Arbor University in 2005

Please indicate why you are requesting appointment to this Board (s) /Commission (s):

I have a passion for recreation and parks. It is what I do and who I am. Ever since I have retired from the State of Michigan of I have wanted to contribute to Jackson County and the parks and recreation field. This is a way to bring my experience to the field.

Additional Information you feel may be helpful in considering your request for appointment:

I have been involved in recreation, leisure, parks and athletics for the majority of my life. I am retired from the State of Michigan in particular the Department of Corrections where I was the Director of Recreation and a teacher for over 27 years. I also have taught for almost 4 years in the Jackson Public

Larry Brown 11/28/2011
Signature: Date:

COUNTY OF JACKSON

REQUEST FOR BOARD OR COMMISSION APPOINTMENT

Mail or personally deliver to: *County of Jackson -- Administrator/Controller's Office -- 6th Floor*
120 West Michigan Avenue, Jackson, MI 49201
(517) 788-4335 FAX (517) 780-4755

The Jackson County Board of Commissioners appoints individuals to numerous Boards and Commissions.
Persons who wish to serve should complete the following information.

NAME: Abbey Teresa
Last First, Middle Initial
HOME ADDRESS: 216 S Waterloo St Jackson 49201
Street City Zip Code
TELEPHONE: 517-414-9430 teresa.abbey@gmail.com
Home, Work, Cell, or Business (Include Area Code) E-mail Address

Name of Board(s) or Commission(s) to which Appointment is requested:

1. Region II Planning Commission 2. Department on Aging Advisory Council 3. _____

Community Activities/Civic Organization/Boards/Commissions:

Activity / Organization:	Length of Service	Position (s) Held:
<u>Region II Planning Commission</u>	<u>3yrs</u>	<u>member at large</u>
<u>Region II Planning Commission</u>	<u>2 yrs</u>	<u>Executive Committee</u>
<u>Department on Aging</u>	<u>3 yrs</u>	<u>Council Member</u>

Employment:

<u>Orion Systems, Inc</u>	<u>Configuration Manager, SW Development</u>	<u>March 1999 to present</u>
Current Employer:	Position:	Dates of Employment:

Education:

Associates in Accounting/Business Management and C++ Programming

Please indicate why you are requesting appointment to this Board (s) /Commission (s):

My term comes to an end December 2011 for both the R2PC and the Department on Aging Advisory Council. I want to continue my service to our community and regions.

Additional Information you feel may be helpful in considering your request for appointment:

I understand the guidelines, policies and responsibilities of being a good planning commissioner and advisory council member. This knowledge gained from many mentors and from reading various publications.

Teresa J Abbey
Signature:

10/23/2011
Date:

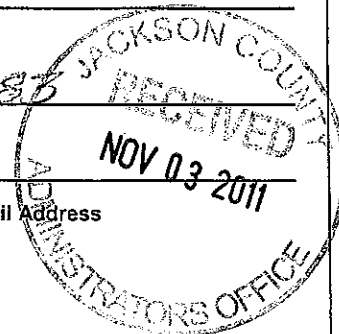
COUNTY OF JACKSON

REQUEST FOR BOARD OR COMMISSION APPOINTMENT

Mail or personally deliver to: County of Jackson Administrator/Controller's Office- 6th Floor
120 West Michigan Avenue, Jackson, MI 49201
(517) 788-4335 fax (517) 780-4755

The Jackson County Board of Commissioners appoints individuals to numerous Boards and Commissions. Persons who wish to serve should complete the following information.

NAME: Johnson Elwin M
Last First Middle Initial
HOME ADDRESS: 316 Teft Rd Spring Arbor 49283
Street City Zip Code
TELEPHONE: 517-750-2266
Home, Work, Cell, or Business (Include Area Code) E-mail Address



Name of Board(s) or Commission(s) to which Appointment is requested:

1. Reg II Planning 2. _____ 3. _____

Community Activities/Civic Organization/Boards/Commissions:

Activity/Organization:	Length of Service	Position(s) Held:
<u>Spring Arbor Fire Dept</u>	<u>30 yrs</u>	<u>Chief</u>
<u>Michigan Comm on Aging</u>	<u>10 yrs</u>	<u>Chairman</u>

Employment:

Current Employer:	Position:	Dates of Employment:
_____	_____	_____

Education:

Spring Arbor High school

Please indicate why you are requesting appointment to this Board(s)/Commission(s):

I have served on Reg II since 1970 and would like to again

Additional Information you feel may be helpful in considering your request for Appointment:

Elwin M Johnson
Signature

10-26-11
Date

Please Type or Print
With Black BallpointPlease Type or Print
With Black Ballpoint

COUNTY OF JACKSON

REQUEST FOR BOARD OR COMMISSION APPOINTMENT

Mail or personally deliver to: *County of Jackson -- Administrator/Controller's Office -- 6th Floor*
120 West Michigan Avenue, Jackson, MI 49201
(517) 788-4335 FAX (517) 780-4755

The Jackson County Board of Commissioners appoints individuals to numerous Boards and Commissions.
 Persons who wish to serve should complete the following information.

NAME: LaGow Cassandra M
Last First Middle Initial

HOME ADDRESS: 4371 Donnelly Jackson 49201
Street City Zip Code

TELEPHONE: Cell: 517.896.9001 Work: 517.787.1380 wilkins.cassandra@gmail.com
Home, Work, Cell, or Business (Include Area Code) E-mail Address

Name of Board(s) or Commission(s) to which Appointment is requested:

1. Region 2 Planning Commission 2. _____ 3. _____

Community Activities/Civic Organization/Boards/Commissions:

Activity / Organization:	Length of Service	Position (s) Held:
<u>Questions Young Professionals</u>	<u>2 years</u>	<u>Officer</u>
<u>Jackson High Speed Rail</u>	<u>6 months</u>	<u>team member</u>
_____	_____	_____

Employment:

Current Employer:	Position:	Dates of Employment:
<u>Summit Heights Dental Care</u>	<u>Business Consultant</u>	<u>August 2010</u>

Education:

Bachelor of Science in Urban Planning and Regional Development, Michigan State University 2007

Please indicate why you are requesting appointment to this Board (s) /Commission (s):

I feel my education and prior experience in urban planning will be beneficial to the planning commission, resulting in the betterment of our community.

Additional Information you feel may be helpful in considering your request for appointment:

Prior experience in master planning, historic preservation, and work with the downtown development authority


 Signature:

November 18, 2011

Date:

Submit

Reset

COUNTY OF JACKSON

REQUEST FOR BOARD OR COMMISSION APPOINTMENT

Mail or personally deliver to: *County of Jackson -- Administrator/Controller's Office -- 6th Floor*
120 West Michigan Avenue, Jackson, MI 49201
(517) 788-4335 FAX (517) 780-4755

The Jackson County Board of Commissioners appoints individuals to numerous Boards and Commissions.
Persons who wish to serve should complete the following information.

NAME: Loik Paul
Last First, Middle Initial

HOME ADDRESS: 4004 Trumble Jackson 49201
Street City Zip Code

TELEPHONE: 517-917-3456 ploik@umich.edu
Home, Work, Cell, or Business (Include Area Code) E-mail Address

Name of Board(s) or Commission(s) to which Appointment is requested:

1. County Fair Board 2. Region 2 Planning 3. Parks Board

Community Activities/Civic Organization/Boards/Commissions:

Activity / Organization:	Length of Service	Position (s) Held:
<u>Michigan Society for Respiratory Care</u>	<u>1989 - Present</u>	<u>Many, Including 3 terms of President</u>
<u>Jackson County 4-H Foundation</u>	<u>2010 - Present</u>	<u>Trustee</u>
<u>Boy Scouts of America</u>	<u>1973-1983</u>	<u>Scout, Teen leader and Adult leader</u>

Employment:

<u>University of Michigan Hospitals</u>	<u>Senior Clinical Specialist</u>	<u>5/1/89 - present</u>
Current Employer:	Position:	Dates of Employment:

Education:

Associates in Liberal Arts Associates in Biology Associates in Respiratory Care

Please indicate why you are requesting appointment to this Board (s) /Commission (s):

I have always been interested in public service. I am interested in serving my community. I believe it is a citizen's responsibility to try and help improve their community.

Additional Information you feel may be helpful in considering your request for appointment:

I believe my work experience, along with the voluntary organizations I belong to have provided me with valuable group skills. I am hard working , and willing to serve on any board where I can help my community.

Paul Loik
Signature:

11/22/2011
Date:

COUNTY OF JACKSON

REQUEST FOR BOARD OR COMMISSION APPOINTMENT

Mail or personally deliver to: *County of Jackson -- Administrator/Controller's Office -- 6th Floor*
120 West Michigan Avenue, Jackson, MI 49201
(517) 788-4335 FAX (517) 780-4755

The Jackson County Board of Commissioners appoints individuals to numerous Boards and Commissions.
Persons who wish to serve should complete the following information.

NAME: Bryant Chelsea
Last First Middle Initial
HOME ADDRESS: 3390 Trillium Lane, Apt. 21 Jackson 49201
Street City Zip Code
TELEPHONE: (517)782-2866 chelseabryantl@att.net
Home, Work, Cell, or Business (Include Area Code) E-mail Address

Name of Board(s) or Commission(s) to which Appointment is requested:

1. Region 2 Planning Board Commission 2. 3.

Community Activities/Civic Organization/Boards/Commissions:

Activity / Organization:	Length of Service	Position (s) Held:
<u></u>	<u></u>	<u></u>
<u></u>	<u></u>	<u></u>
<u></u>	<u></u>	<u></u>

Employment:

<u>Jackson Public Schools</u>	<u>Building Secretary</u>	<u>September 2006-Present</u>
Current Employer:	Position:	Dates of Employment:

Education:

B.A. Sociology- Hampton University, Hampton Virginia

Please indicate why you are requesting appointment to this Board (s) /Commission (s):

I have a strong interest in the various uses of land and I believe that citizen participation is vital to making decisions that improve the economic stability of the county.

Additional Information you feel may be helpful in considering your request for appointment:

I am committed to developing critical knowledge and competencies necessary to be an effective public board member of the Region 2 Planning Commission. Therefore, I fully understand that the purpose of the planning board member is to make decisions based on sound planning principles and best practices.

Chelsea L. Bryant 11/23/2011
Signature: Date:

COUNTY OF JACKSON

REQUEST FOR BOARD OR COMMISSION APPOINTMENT

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120 West Michigan Avenue, Jackson, MI 49201
(517) 788-4335 FAX (517) 780-4755

The Jackson County Board of Commissioners appoints individuals to numerous Boards and Commissions.
Persons who wish to serve should complete the following information.

NAME: Klavan Nyan
Last First, Middle Initial

HOME ADDRESS: 6211 Penny Lane Jackson 49201
Street City Zip Code

TELEPHONE: 517-937-1840 Cell nyanklavan@gmail.com
Home, Work, Cell, or Business (Include Area Code) E-mail Address

Name of Board(s) or Commission(s) to which Appointment is requested:

1. Fair Board 2. Region 2 Planning Commission 3.

Community Activities/Civic Organization/Boards/Commissions:

Activity / Organization:	Length of Service	Position (s) Held:
<u></u>	<u></u>	<u></u>
<u></u>	<u></u>	<u></u>
<u></u>	<u></u>	<u></u>

Employment:

<u>State of Michigan</u>	<u>Trades Instructor</u>	<u>1988 to Present</u>
Current Employer:	Position:	Dates of Employment:

Education:

Bachelor of Business

Please indicate why you are requesting appointment to this Board (s) /Commission (s):

I am nearing retirement and would like to become more active in the community. I have a business here and I am a licensed realtor.

Additional Information you feel may be helpful in considering your request for appointment:

I have been active participant in the Jackson Fair since I was 8 years old. I love the fair and am always excited about its future growth.

Nyan Klavan
Signature:

11/22/2011
Date:

COUNTY OF JACKSON

REQUEST FOR BOARD OR COMMISSION APPOINTMENT

Mail or personally deliver to: *County of Jackson -- Administrator/Controller's Office -- 6th Floor*
120 West Michigan Avenue, Jackson, MI 49201
(517) 788-4335 FAX (517) 780-4755

The Jackson County Board of Commissioners appoints individuals to numerous Boards and Commissions.
Persons who wish to serve should complete the following information.

NAME: Rand Michael
Last First Middle Initial
HOME ADDRESS: 6535 McCain Rd Spring Arbor 49283
Street City Zip Code
TELEPHONE: (H)517-750-3682 (C)517-937-4158 mikerand114@sbcglobal.net
Home, Work, Cell, or Business (Include Area Code) E-mail Address

Name of Board(s) or Commission(s) to which Appointment is requested:

1. Jackson County Road Commission 2. 3.

Community Activities/Civic Organization/Boards/Commissions:

Activity / Organization:	Length of Service	Position (s) Held:
<u>Jackson County Road Commission</u>	<u>4 years</u>	<u>Chairman, Vice Chair, Member</u>
<u>Jackson County Parks Board</u>	<u>1 Year</u>	<u>Member</u>
<u></u>	<u></u>	<u></u>

Employment:

<u>Blackman Township</u>	<u>Sergeant</u>	<u>12/26/1993- present</u>
Current Employer:	Position:	Dates of Employment:

Education:

Bachelors degree plus

Please indicate why you are requesting appointment to this Board (s) /Commission (s):

I have served on this board for the past 4 years. We have implemented many changes and are continuing to improve the JCRC.

Additional Information you feel may be helpful in considering your request for appointment:

As a board, we have a diverse back ground and work well together.

Michael J. Rand Jr. 10/31/2011
Signature: Date:

COUNTY OF JACKSON

REQUEST FOR BOARD OR COMMISSION APPOINTMENT

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120 West Michigan Avenue, Jackson, MI 49201
(517) 788-4335 FAX (517) 780-4755

The Jackson County Board of Commissioners appoints individuals to numerous Boards and Commissions.
Persons who wish to serve should complete the following information.

NAME: Mills Rodney
Last First, Middle Initial
HOME ADDRESS: 2715 Forest Lake Jackson 49203
Street City Zip Code
TELEPHONE: HOME 517-782-7539 Cell 517-202-0450 ramroddigdirt@hotmail.com
Home, Work, Cell, or Business (Include Area Code) E-mail Address

Name of Board(s) or Commission(s) to which Appointment is requested:

1. Jackson County Road Commission 2. Board of Public Works 3. Parks Board

Community Activities/Civic Organization/Boards/Commissions:

Activity / Organization:	Length of Service	Position (s) Held:
Lions Club North Jackson	35 Years	Pres. Treas. Zone Chairman
Ella Sharp Member and volunteer		

Employment:

Retired	Former part owner Mills Exc.	
Current Employer:	Position:	Dates of Employment:

Education:

High School 1Year JCC

Please indicate why you are requesting appointment to this Board (s) /Commission (s):

Retired and have more time and I belive I have experiance that could benifit any ome of these appointments.

Additional Information you feel may be helpful in considering your request for appointment:

I have been involved with Jackson County both work and social for over 50 years and would like to give a little time and effort back.

Rodney D Mills

Signature:

11/13/2011

Date:

COUNTY OF JACKSON

REQUEST FOR BOARD OR COMMISSION APPOINTMENT

Mail or personally deliver to: County of Jackson Administrator/Controller's Office- 6th Floor
120 West Michigan Avenue, Jackson, MI 49201
(517) 788-4335 fax (517) 780-4755

The Jackson County Board of Commissioners appoints individuals to numerous Boards and Commissions. Persons who wish to serve should complete the following information.

NAME: MAILLARD MICHAEL D
Last First Middle Initial
HOME ADDRESS: 6076 SANCTUARY DR. JACKSON 49201
Street City Zip Code
TELEPHONE: Home: 517-748-9172, Cell: 517-914-2655 Conrad2008@Comcast.net
Home, Work, Cell, or Business (Include Area Code) E-mail Address

NOV 17 2011

Name of Board(s) or Commission(s) to which Appointment is requested:

1. J.C. Road Commission 2. _____ 3. _____

Community Activities/Civic Organization/Boards/Commissions:

Activity/Organization:	Length of Service	Position(s) Held:
<u>Rotaract Order of Eagles</u>	<u>Four years</u>	
<u>Austin Blair Camp 7, SLCW</u>	<u>16 years</u>	<u>Treasurer</u>
<u>Leon: Trp.</u>	<u>3 yrs</u>	<u>Environmental Advisor</u>

Employment:

<u>Retired - MDEQ</u>	<u>District Engineer</u>	<u>July/1993 to Dec./2010</u>
Current Employer:	Position:	Dates of Employment:
<u>* See Attachment</u>		

Education:

* See Attachment

Please indicate why you are requesting appointment to this Board(s)/Commission(s):

Willing to participate in decisions of policy and activities in regards to the Road Commission

Additional Information you feel may be helpful in considering your request for Appointment:

* See Attachment

Michael R. Maillard
Signature

Nov. 17, 2011
Date

November 17, 2011

Subject: Request for Board of Jackson County Road Commission Appointment

Employment:

1. From 1963 to 1969 performed seasonal and part time duties in surveying for the City of Dearborn.
2. From 1965 thru 1968 performed seasonal duties as a construction inspector for the City of Dearborn.
3. From 1969 thru 1980 performed engineering activities and inspections of combustion equipment and environmental processes for the Wayne County Health Dept.- Air Pollution Control Div. in Detroit.
4. From 1981 thru 1992 I was supervisor for Enforcement/Compliance and permits for the above division. I retired from Wayne County at the end of 1992.
5. From July 1993 thru Dec. 2010 was the District Engineer in Jackson for the State of Michigan MDEQ-AQD, performing engineering analysis of industrial systems, assessing compliance of facilities and structuring complex permits for facilities out of this district office. I retired at the end of the year, 2010.

Education:

1. Bachelor's Degree in Civil Engineering from Wayne State University in June, 1969.
2. Master's Degree in Civil Engineering from Wayne State University in June, 1973.

Additional Qualifications:

1. Registered Professional Engineer in the State of Michigan since 1974.
2. Extensive interaction with Wayne County Road Commission and MDOT from 1982 thru 1992 in regards to bridge reconstruction and maintenance, for environmental impact. I was involved with staff direction concerning road construction and policy formulation on salt mining and road salt application as to environmental impact.
3. Interaction with MDOT, as to road construction activities in Jackson County, in regards to environmental impact from July 1969 thru Dec. 2010.
4. Inspection of quarry operations concerning aggregate screening and crushing and providing operational recommendations in the Jackson County area from July 1969 thru Dec. 2010.

5. Interaction with Jackson Road Commission, while MDEQ engineer, as to assisting in recommending dust suppressants and aggregate composition for application on unpaved county roads and having environmental oversight on road construction in Jackson County.

Michael D. Maillard, P.E.

6076 Sanctuary Drive

Jackson, Michigan 49201

THIS FORM CONTAINS REQUIRED FIELDS - IT WILL NOT SUBMIT IF ANY OF THE REQUIRED FIELDS ARE EMPTY
** DENOTES A REQUIRED FIELD

INTERNET APPLICATION FORM INSTRUCTIONS: Complete all the required fields and submit

APPLICATION FOR EMPLOYMENT
JACKSON COUNTY AND COURTS

Date of Application November 11, 2011

** JOB PREFERENCE Road Commission Board Appt.

NAME ** Charles Deborah L.
Last First Middle Initial
ADDRESS ** 6891 N. Parma Rd Parma MI 49269
Street City State Zip Code

TELEPHONE ** (517) 531-5310 (517) 531-5310
Home Daytime Number

Have you ever been employed by Jackson County or Courts before? ☐ Yes ☒ No

Are you legally eligible for employment in this country? ☒ Yes ☐ No
(Proof of U.S citizenship or immigration status will be required upon employment.)

When would you be available for work? Immediate

Are you available to work: ☐ Full-time ☒ Part-time ☐ Shift Work ☐ Temporary/Seasonal

Are you currently employed? ☐ Yes ☒ No May we contact your present employer? ☐ Yes ☐ No

If applying for a position requiring a drivers/chauffeurs' license please give license number: _____

List professional licenses you hold: none

If applying for a clerical position, please indicate typing/data entry speed: _____

Summarize special skills and qualifications acquired from employment or other experiences that may qualify you to work with Jackson County. _____

Knowledge of County Road Commission functions
see attached

Have you been convicted of a felony or misdemeanor in the last seven (7) years? ☐ Yes ☒ No
If yes, please explain: _____

Have you received a disciplinary suspension or been discharged from any position(s)? ☐ Yes ☒ No
If yes, please explain: _____

Do you have any relatives employed by Jackson County or Courts? ☐ Yes ☒ No
If yes, please give name and department: _____

Provide any other information, including volunteer experience, you feel would be helpful in determining how you may be employed.

please see attached

NOTE: You are welcome to submit a resume. However, you are requested to complete the Education and Employment History sections of this application whether or not a resume is attached.

EMPLOYMENT HISTORY:

Employer** Ingham County Address** 301 N. Bush St, P.O. Box
Road Commission Mason MI 48854
Job Title** Secretary to the Board Immediate Supervisor and Title** William M. Conklin, Managing Director

Summarize nature of work performed and job responsibilities:**

Executive Secretary to Managing Director and Assistant to the Board, taking
and preparing board minutes, union negotiations, prepare equipment, material and Const.
proposals (see attached)

Dates of Employment**
June 1981-April 2010

Hourly Rate/Salary**
28.72/hour

Reason for Leaving**
Retired

Employer Ingham County Address 707 Buhl Dr, P.O. Box 220
Drain Commission Mason MI 48854

Job Title Secretary to Drain Commr. Immediate Supervisor and Title Richard L. Jode, Commissioner (deceased)

Summarize nature of work performed and job responsibilities:

typing correspondence, assisting with drain assessment rolls, taking and
preparing minutes for Board of Public Works, scheduling for Commissioner

Dates of Employment
March 1977- June 1981

Hourly Rate/Salary
do not recall

Reason for Leaving
accepted position with Road Commission

Employer Norman M. Gaffney P.C. Address 530 South Capitol
Lansing MI

Job Title Legal Secretary Immediate Supervisor and Title Norman M. Gaffney, Attorney

Summarize nature of work performed and job responsibilities:

typing legal documents, court pleadings, scheduling
collecting fees and preparing monthly invoices to clients

Dates of Employment
1974-1977

Hourly Rate/Salary
do not recall

Reason for Leaving
accepted position with county Drain Commission

Employer Address

Job Title Immediate Supervisor and Title

Summarize nature of work performed and job responsibilities:

Dates of Employment

Hourly Rate/Salary

Reason for Leaving

EDUCATIONAL BACKGROUND:

NAME/LOCATION	YEARS COMPLETED	DEGREE
High School** <i>Eaton Rapids High School</i>	** <i>4</i>	<i>1973</i> ** <i>graduate</i>
College/University**	**	**

1977-1978, 1987-1989 Some business courses at LCC

Other

As public employers, Jackson County and the Courts are subject to the Freedom of Information Act and, under that Act, Jackson County is required to provide a copy of this application to any individual submitting a written request unless, as an applicant, you request that your application remain in confidence.

I wish this application for employment to remain in confidence

☐ Yes ☐ No

I hereby certify that all statements on this Application for Employment (and accompanying resume, if any) are made completely, truthfully and without evasion, and further understand and agree that such statements may be investigated and if found to be false will be sufficient reason for not being employed, or if employed, may result in my dismissal.

I authorize Jackson County and the Courts to investigate all statements contained in the application, including disciplinary records of any former employers, police departments, and other references or sources concerning me. I authorize all such references and sources to release this information without liability for damage incurred in giving it. I waive any written notice of the release of such records that may be required by state or federal law.

I understand that neither this document nor any offer of employment from the employer constitutes an employment contract unless a specific document to that affect is executed in writing by the employer. I understand that any employment offer may be conditioned upon the results of a pre-employment medical examination, and any other necessary medical tests to determine the presence of alcohol, drugs, or controlled substances, should they be required.

Jackson County and the Courts actively encourage applications by qualified individuals with disabilities, and does not discriminate in its consideration of such applicants. If you believe that any accommodation of a disability will be necessary for the testing and/or interview process contact the Human Resources Department at (517) 788-4340.

Signature of Applicant:

Derek Charles

Date: November 11, 2011

JACKSON COUNTY AND COURTS, FOR PURPOSES OF HIRING, PROMOTION, ADVANCING, OR ASSIGNING JOBS OR ANY OTHER TERMS OR CONDITIONS OF EMPLOYMENT AGREES TO PROVIDE EQUAL EMPLOYMENT OPPORTUNITY REGARDLESS OF RACE, COLOR, RELIGION, NATIONAL ORIGIN, AGE, SEX, HEIGHT, WEIGHT, MARITAL STATUS, ARREST RECORD, OR DISABILITY AS DEFINED BY LAW OR ANY FACTOR NOT RELATIVE TO JOB PERFORMANCE; EXCEPT WHERE A SPECIFIED AGE, SEX OR PHYSICAL REQUIREMENT IS A BONA-FIDE OCCUPATIONAL REQUIREMENT.

DO NOT WRITE BELOW THIS LINE

Test Scores/Dates:

Start Date	Fund/Sub-Dept.	Job Title	Classification
Rate of Pay	Employee No.	Approved By:	PCN#

Dear Commissioners:

I worked at the Ingham County Road Commission from June 1981 through April 2010. After 29 years of service, I retired in April of 2010. At the time of my retirement, I was the Secretary to the Board.

My tasks were a variety of duties, including recording and preparing minutes for the Board of Ingham County Road Commissioners. As the Board's Secretary, a statutorily held position, I worked exclusively for the Board and the Managing Director. I prepared all Board meeting agendas, scheduled various appointments for Board meetings, and recorded and prepared all minutes. I also helped with scheduling, such as various public informational meetings, Budget public hearings, and construction public hearings, which are annual events. I handled all of the statutory legalities of publishing for these meetings and public hearings.

Although I did not directly set or recommend annual budgets, I participated in staff meetings and brainstorming in the preliminary stages leading up to presentation of a draft to the Board for its review and ultimate adoption.

As a non-union management level employee, I participated in labor negotiations, and was a member of the management team for the OPEIU Local 512 labor negotiations for many years. The Ingham County Road Commission also has the AFSCME Local 1499 employees and OPEIU Supervisors Unit. I also participated in preparation for these labor negotiations and prepared documents for management proposals.

When the Board dissolved the Human Resources Department (with the departure of the then HR Director) in 2007 and turned all legal aspects over to its Legal Counsel, I assumed many of those HR duties and assisted Legal Counsel and the Managing Director in legal issues, such as being involved in all union grievance procedures, up to and including Arbitration, and other personnel and disciplinary issues, some leading to termination.

I was also in charge of the drug testing program for the Road Commission, which on some occasions led to discipline and/or termination.

For many years, and especially the six years prior to my retirement, I was the staff liaison between union officials and management.

I believe I have a vast knowledge of County Road Commissions and how they function, from the day to day operations, to the legal responsibilities and public expectations of the Board of County Road Commissioners. I also have knowledge of the financial and budgeting aspects of the Road Commission.

References:

Joseph D. Pulver, Managing Director
Clinton County Road Commission
997 West Dexter Trail
Mason MI 48854
517-676-6769

June H. Pallottini, Former Commissioner
Ingham County Road Commission (1993-2004)
2634 West Bellevue Road
Leslie MI 49251
517-589-8809

Joseph A. Guenther, Former Chair
Ingham County Road Commission
1904 Schoolcraft
Holt MI 48842
517-256-8013

David O. Sheathelm, Former Commissioner
Ingham County Road Commission (1989-2000)
3230 Sheathelm Road
Dansville MI 48819
517-623-6324

Larry R. Smith, Former Commissioner
Ingham County Road Commission
2423 Burcham Drive
East Lansing MI 48823
517-332-4002

William M. Conklin, Managing Director
Ingham County Road Commission
45209 Pinetree Drive
Plymouth MI 48170
517-453-4934 H
517-749-5093 C

COUNTY OF JACKSON

REQUEST FOR BOARD OR COMMISSION APPOINTMENT

Mail or personally deliver to: *County of Jackson -- Administrator/Controller's Office -- 6th Floor*
120 West Michigan Avenue, Jackson, MI 49201
(517) 788-4335 FAX (517) 780-4755

The Jackson County Board of Commissioners appoints individuals to numerous Boards and Commissions.
Persons who wish to serve should complete the following information.

NAME: Herlein David
Last First, Middle Initial

HOME ADDRESS: 7255 Fairfield Ct Spring Arbor 49283
Street City Zip Code

TELEPHONE: 517-206-1218 cell 517-750-4225 Home pssg@ameritech.net
Home, Work, Cell, or Business (Include Area Code) E-mail Address

Name of Board(s) or Commission(s) to which Appointment is requested:

1. Road Commission 2. 3.

Community Activities/Civic Organization/Boards/Commissions:

Activity / Organization:	Length of Service	Position (s) Held:
<u>Spring Arbor Township</u>	<u>5 mo</u>	<u>Trustee</u>
<u>Spring Arbor Township</u>	<u>5 years</u>	<u>Planning Commission</u>
<u>Spring Arbor Township</u>	<u>15 years</u>	<u>Zoning Board of Appeals</u>

Employment:

<u>Premier Electrical Sales, Inc</u>	<u>Owner/President</u>	<u>12 years 1994 to present</u>
Current Employer:	Position:	Dates of Employment:

Education:

BA. Spring Arbor University

Please indicate why you are requesting appointment to this Board (s) /Commission (s):

Desire to help in the future of Jackson county and to have a better understanding of how our roads are managed.

Additional Information you feel may be helpful in considering your request for appointment:

David Herlein 11/22/2011
Signature: Date:

COUNTY OF JACKSON

REQUEST FOR BOARD OR COMMISSION APPOINTMENT

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(517) 788-4335 FAX (517) 780-4755

The Jackson County Board of Commissioners appoints individuals to numerous Boards and Commissions.
Persons who wish to serve should complete the following information.

NAME: Garcia Paul
Last First Middle Initial
HOME ADDRESS: 6032 Carbary Drive Jackson 49201
Street City Zip Code
TELEPHONE: 517-745-5219 ptgarcia45@hotmail.com
Home, Work, Cell, or Business (Include Area Code) E-mail Address

Name of Board(s) or Commission(s) to which Appointment is requested:

1. Jackson Co. Traffic Safety Commission 2. 3.

Community Activities/Civic Organization/Boards/Commissions:

Activity / Organization:	Length of Service	Position (s) Held:
Jackson Co. Traffic Safety Commission	April 17, 2002 - Current (11 yrs.)	Commissioner

Employment:

Jackson Co. Sheriff Office	Deputy	July 2, 2007 - Current
Current Employer:	Position:	Dates of Employment:

Education:

Working towards receiving a Bachelor's degree in law enforcement

Please indicate why you are requesting appointment to this Board (s) /Commission (s):

I have had the pleasure of serving on this board for over eleven year's and still very much interested in serving the resident's of Jackson County as a representative.

Additional Information you feel may be helpful in considering your request for appointment:

I feel that with my many years of experience serving as a commissioner on this board, I have brought great idea's toward's fulfilling our mission statement.

Paul Garcia
Signature:

11/22/2011
Date:

COUNTY OF JACKSON

REQUEST FOR BOARD OR COMMISSION APPOINTMENT

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120 West Michigan Avenue, Jackson, MI 49201
(517) 788-4335 FAX (517) 780-4755

The Jackson County Board of Commissioners appoints individuals to numerous Boards and Commissions.
Persons who wish to serve should complete the following information.

NAME: Parker Benjamin
Last First, Middle Initial

HOME ADDRESS: 1004 S Durand St Jackson 49203
Street City Zip Code

TELEPHONE: 517-292-6773 bparker1597@gmail.com
Home, Work, Cell, or Business (Include Area Code) E-mail Address

Name of Board(s) or Commission(s) to which Appointment is requested:

1. Traffic Safety Commission 2. Parks Board 3.

Community Activities/Civic Organization/Boards/Commissions:

Activity / Organization:	Length of Service	Position (s) Held:
<u>Spring Arbor Fire Department</u>	<u>7 Years</u>	<u>Firefighter/EMT</u>
<u>American Red Cross</u>	<u>3 Years</u>	<u>Instructor, CPR First Aid</u>
<u></u>	<u></u>	<u></u>

Employment:

<u>Jackson County Sheriffs Department</u>	<u>911 Dispatcher</u>	<u>03/2011 - Present</u>
Current Employer:	Position:	Dates of Employment:

Education:

Bachelor of Arts, Spring Arbor University, 2002

Please indicate why you are requesting appointment to this Board (s) /Commission (s):

I would enjoy being involved with decisions that affect the safety of motorists on our roadways in Jackson County.

Additional Information you feel may be helpful in considering your request for appointment:

Ben Parker
Signature:

11/12/2011
Date:



Jackson County

ADMINISTRATOR/CONTROLLER

Michael R. Overton, Administrator/Controller

Adam J. Brown, Deputy Administrator

TO: Board of County Commissioners

FROM: Michael R. Overton
Administrator/Controller

SUBJECT: MPO Thresholds

DATE: December 7, 2011

Motion Requested

Approve the Attached Resolution in Support of Maintaining the Current Population Thresholds for Metropolitan Planning Organizations (MPO's) in Federal Surface Transportation Authorization Legislation

I. Background

- A. Senate Bill 1813, titled Moving Ahead for Progress in the 21st Century (MAP-21) recently passed through the Environment and Public Works Committee.
- B. MAP-21 recommends elimination or phasing out of all Metropolitan Planning Organization (MPO) regions with less than 200,000 in urbanized population.
- C. The current threshold for a MPO is 50,000.

II. Current Situation

- A. The Michigan Transportation Planning Association (MTPA), in a letter dated November 9, 2011, has stated that the approval of MAP-21 would mean the dissolution of the Jackson MPO.
- B. The MTPA states that "its members believe all existing small MPO's must remain in operation to continue their critical roles in decision-making." It continues, "Local elected officials are the MPO. Removing their decision-making authority from the transportation planning and programming process will take away the voice of the local government and its citizens. The best decisions affecting local and regional planning and programming are those made by local elected officials, who are accountable to the electorate, know their region, and have cooperatively developed regional vision plans through the comprehensive public participation process."

- C. Region 2 Planning Commission, of which we are a part, approved a resolution on August 11, 2011 opposing the elimination of MPO's fewer than 200,000. Other MPO's that would be eliminated under this plan include Battle Creek, Bay City, Kalamazoo, Holland, Jackson, Saginaw, Benton Harbor/St. Joseph, and Muskegon.
- D. We recommend that the County of Jackson take a position of opposition to MAP-21 to be shared with our legislators in Washington.

III. Analysis

- A. **Strategic** - The proposed legislation could have significant impacts on our advocacy for transportation systems in Jackson County which could in turn seriously impact our economic development strategies.
- B. **Financial** – Jackson County's status for transportation and other state and federal funding is seriously jeopardized without the MPO status.
- C. **Legal** –The designation of MPO has legal implications with respect to formula funding.
- D. **Timing** – Congress is currently debating this legislation.

IV. Alternatives

The County Commission can choose to do nothing or to take an alternate position.

V. Recommendation

The Administrator/Controller recommends approval of the attached resolution in support of maintaining the current population thresholds for Metropolitan Planning Organizations (MPO's) in Federal Surface Transportation authorization legislation.

Attachments:



Jackson County

Resolution (12-11.44) in Support of Maintaining the Current Population Thresholds for Metropolitan Planning Organizations (MPOs) in Federal Surface Transportation Authorization Legislation

Whereas, the Jackson Area Comprehensive Transportation Study (JACTS) is comprised of local and state elected and appointed officials, charged with carrying out the provisions of federal transportation legislation to conduct a continuing, comprehensive and cooperative transportation planning program as the Metropolitan Planning Organization (MPO) in the greater Jackson, Michigan metropolitan area; and

Whereas, a MPO provides a critical link in the partnership between federal, state, and local transportation officials for the delivery of a well planned, coordinated transportation system; and

Whereas, decisions on transportation projects and investments are critical to metropolitan areas of all sizes; and

Whereas, the current MPO population thresholds provide an open and accessible transportation planning process that is based on involvement by communities and their local elected and appointed officials; and

Whereas, the current MPO population thresholds also provide a key mechanism for connecting federal transportation policies, priorities, and funding to the needs of communities and citizens.

Now Therefore, Be it Resolved, this 13th day of December, 2011, that the Jackson County Board of Commissioners hereby expresses its support for maintaining the current MPO population thresholds in the ***“Moving Ahead for Progress in the 21st Century – MAP 21”*** Federal Transportation Reauthorization legislation.

James E. Shotwell, Jr., Chairman
Jackson County Board of Commissioners
December 13, 2011