



Local Planning and Preparation Guidance for the April 8, 2024 Total Solar Eclipse

Background Information

A total solar eclipse will be visible in parts of Ohio on the afternoon of April 8, 2024. The eclipse's period of totality will enter Ohio north of Greenville, in Darke County, around 3:00 pm. Ten minutes later, the period of totality will exit the state out into Lake Erie in Avon Lake, Ohio, in Lorain County. Depending on where you are – closer or farther away from the totality center line – the sun will be obscured from thirty seconds to nearly five minutes.

This graphic below is a time-lapse of photographs of the sun from 2017. It shows the total eclipse's phases, from the initial partial eclipse phase, through the second partial eclipse phase. The total duration of the eclipse event, from the initial partial eclipse, through the second partial eclipse after the total eclipse will take hours.

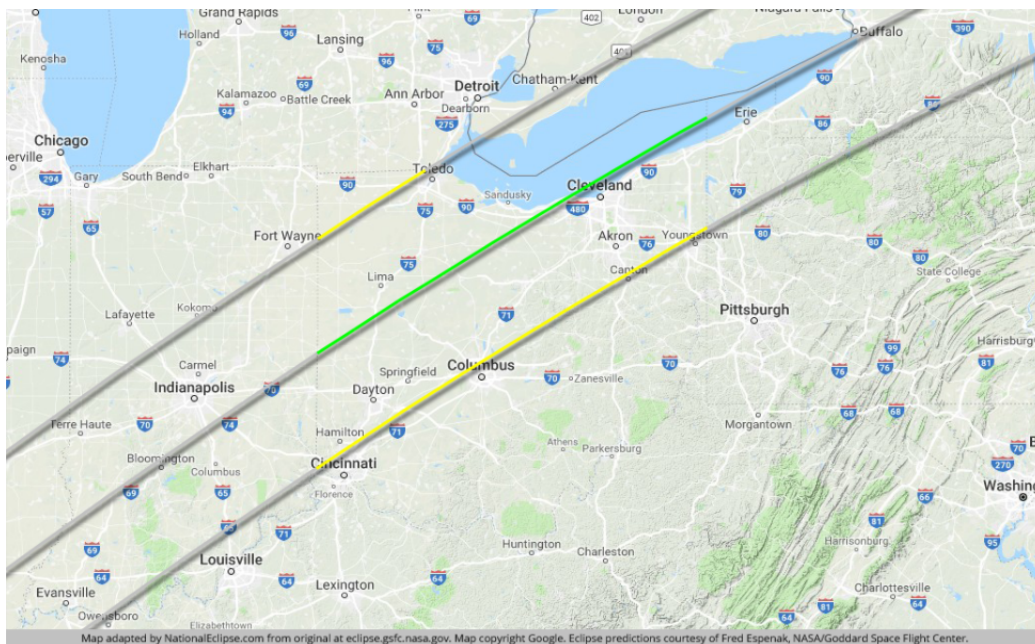
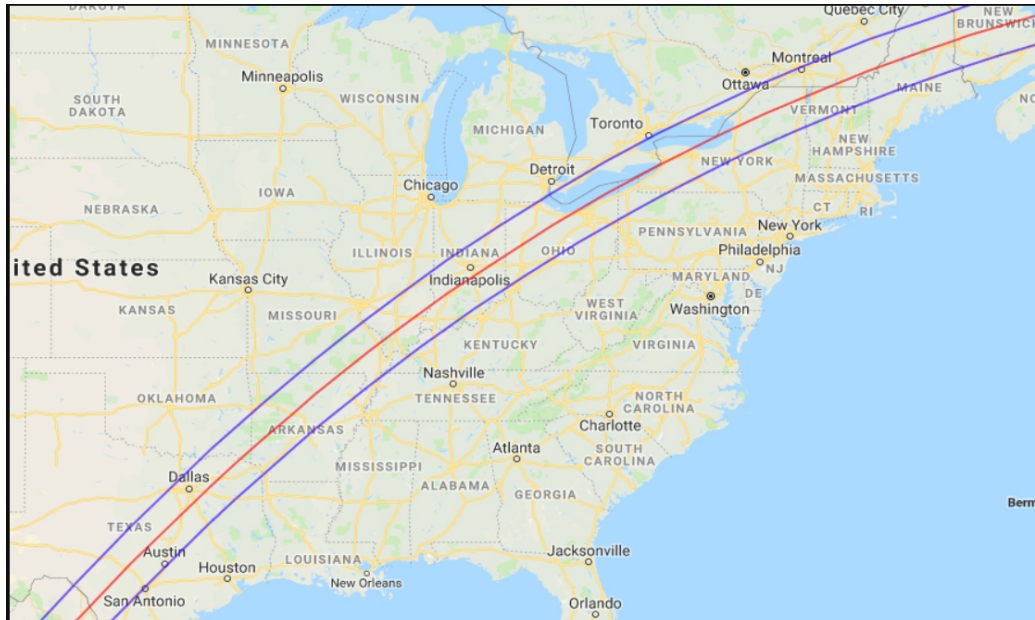


During the period of totality, the sun's corona will be visible around the jet-black sphere of the moon. A total solar eclipse is a rare and spectacular experience. On average, one is visible somewhere on the Earth only once every 1.5 years. Only 15 total solar eclipses have been visible in the U.S. since 1867. The last one in Ohio was in 1806, and the next one in Ohio after the 2024 event will be in the year 2444.

The moon will be relatively close to the earth during this total eclipse, so the eclipse will be of a long duration – almost twice the duration of the 2017 total solar eclipse. A partial eclipse of the sun will be visible before and after the total eclipse, and some counties in Ohio will only see a partial eclipse. A partial solar eclipse is interesting, but a total solar eclipse can be life-changing.



The Pathway of the 2024 Total Solar Eclipse



These maps show the Totality Pathway of the 2024 eclipse (areas that will experience a total solar eclipse) from a national perspective, and from an Ohio perspective. On the maps, the outer lines show the extent of the width of the totality pathway, and the inner center line shows the totality center line, where totality will be the longest. Cincinnati and Columbus are on the southern edge of the totality pathway, and the totality center line exits out into Lake Erie just west of Cleveland. Dayton, Akron, Lima, Toledo, Springfield, Sandusky, and other large cities in Ohio are within the totality pathway.

Expected Impacts of the 2024 Total Solar Eclipse

Because Ohio is within a one-day drive from 70% of the country's population, the state is going to be a target destination for many people from around the country and from around the world who want to view a total solar eclipse in their lifetime.



This image from the 2017 total solar eclipse shows the reaction of the crowd as the eclipse entered totality. Special solar eclipse viewing glasses are necessary for viewing the partial eclipse phases, but are not needed during the total eclipse phase.

The 2024 eclipse will present Ohio with unprecedented opportunities for the development of educational programming before, during and after the event. Because this is such a rare and spectacular event, it is expected that on the day of the eclipse, the local population in center-line communities could triple or quadruple, and the local population in other totality communities could double.

The expected population increases on days before, the day of, and on the day after the eclipse will result in extreme demands and stresses on local infrastructure and services, including: hotels, campsites, food, water, restaurants, utilities, law enforcement, fire services, medical facilities, entertainment facilities, parks, etc. For the 2017 total solar eclipse, hotels and campsites were fully booked 6-9 months prior to the event for hundreds of miles in all directions.



Across the country, the egress from the 2017 Total Solar resulted in the largest traffic backups in history.

The above image shows the post-eclipse traffic problem that occurred across the country on egress routes – a 5.5-hour trip from Columbus, Ohio to an eclipse viewing site in Hopkinsville, Kentucky turned into a 17.5-hour crawling trip back to Columbus. During the exit from the eclipse, across the country (the 2017 total solar eclipse was visible on a line that stretched across the country from Oregon to South Carolina), restaurants ran out of food, gas stations ran out of fuel, and as it got dark, vehicles stopped on the shoulders for the night, blocking emergency vehicles. National traffic reporting maps that were published after the event showed solid red “extreme traffic backup lines” on all highways within totality areas – but what those maps didn’t show was that those red lines continued hundreds of miles in all directions.

Ohio’s state and local emergency managers have the ability and the capacity to lead the way in showing the nation what needs to be done to prevent these things from happening this time around.

The state of Ohio has formed a State Total Solar Eclipse Planning Task Force to lead state and federal agencies through the necessary planning and preparation that needs to be done to prepare state-level response to the 2024 eclipse event. Counties and local municipalities should start to plan for the 2024 eclipse by publicizing the event by talking to local agencies, schools, colleges, libraries, and other entities. Local jurisdictions should also start to think about what needs to be done to address resource and response needs, and think about what needs to be



done to address health, safety and welfare needs. This document includes guidance for addressing these issues, to make viewing the 2024 total solar eclipse in your jurisdiction a safe, joyful and memorable experience.

The Total Solar Eclipse Experience by County

Nine Ohio counties intersect with the center line of totality. These counties will have the longest periods of totality, the highest viewing demands, and the highest demands on local infrastructure and services:

€ Auglaize	€ Erie	€ Huron
€ Darke	€ Hardin	
€ Lorain	€ Shelby (NW corner)	
€ Seneca	€ Wyandot	

Thirty-five Ohio counties have the entirety of their county within the path of totality (totality will be experienced throughout the county). The counties that are in the list, above are also included in this list. The counties on the list, below will also have high viewing demand, and high demand on local infrastructure and services:

€ Allen	€ Hardin	€ Preble
€ Ashland	€ Huron	€ Putnam
€ Ashtabula	€ Lake	€ Richland
€ Auglaize	€ Logan	€ Sandusky
€ Champaign	€ Lorain	€ Seneca
€ Clark	€ Marion	€ Shelby
€ Crawford	€ Medina	€ Summit
€ Cuyahoga	€ Mercer	€ Union
€ Darke	€ Miami	€ Van Wert
€ Erie	€ Montgomery	€ Wood
€ Geauga	€ Morrow	€ Wyandot
€ Hancock	€ Ottawa	

Twenty counties have only part of county in the path of totality:

€ Butler	€ Henry	€ Paulding
€ Defiance	€ Holmes	€ Portage
€ Delaware	€ Knox	€ Stark
€ Franklin	€ Licking	€ Trumbull
€ Fulton	€ Lucas	€ Warren
€ Greene	€ Madison	€ Wayne
€ Hamilton	€ Mahoning	



Thirty-three counties are outside area of totality. These counties will only be able to view a partial eclipse. It is important to note, though, that all of Ohio's 88 counties will be impacted by people traveling through, or seeking lodging and entertainment and other resources, independent of the eclipse experience in a county. **No Ohio county will be immune to the impacts of the 2024 total solar eclipse, including stresses on local infrastructure and services.**



Many local viewing festivals were organized for the 2017 total solar eclipse.

For the 2017 total solar eclipse, people arrived at their pre-determined, paid viewing sites throughout the morning and the day before the eclipse, but most people left within the hour directly after the end of the eclipse. This sudden exit of millions of people in a short time frame resulted in dangerous conditions on highways and secondary roads. One of the ways we can lessen the problems that were seen in 2017 with egress from the event is to, at the local level, promote the organization of viewing festivals, educational programs, and other events that will encourage people to **“Arrive Early, Stay Late, and Stay Put.”**

Counties should, within the coming year, start to:

- € Work with local organizers.
- € Start thinking about ways to expand lodging opportunities and designating public viewing areas.
- € Form a county-level, and support local-level Eclipse Planning Task Forces.
- € And as with any other emergency planning effort, “Prepare for the worst, and hope for the best.”



Local 2024 Total Solar Eclipse Planning Guidance

The following guidance was developed to assist local jurisdictions in their preparation for the April 8, 2024 Total Solar Eclipse.

Local Eclipse Response Planning Tasks

- € Select a Local Eclipse Community Coordinator at the county level, and coordinators for separate municipalities, as needed.
- € Form a local Eclipse Planning Task Force and sub-committees to address planning and preparation needs for response to the event at the county level, and for separate municipalities, as well.
- € Prepare a Media Kit that includes printed and electronic media materials to inform citizens of the solar eclipse event. These materials can be distributed through the news media, through local civic groups, and at local gatherings – fairs, meetings, etc.
- € Prepare printed and electronic media materials to inform citizens of:
 - Solar eclipse event festivities
 - Viewing areas
 - Lodging opportunities (hotel, motel, camping, etc.)
 - Entertainment
 - Local attractions
- € Prepare informational materials to assist eclipse viewers before and during the event:
 - Pamphlets
 - Brochures
 - Flyers
 - Maps
 - Road Signs
 - Directional Signage
 - Event Signage
- € Plan to acquire enough approved Eclipse Viewing Glasses to provide to citizens and visitor viewers well in advance of the event.
- € Plan to be able to provide an appropriate number of the following resources to serve the number of people who be expected to come to the county/municipalities the day before, the day of, and the day after the solar eclipse event:



- Public Toilets (port-a-pottys)
- Recycling and Trash Bins
- Water
- Food
- Medical Services (hospital, first aid, EMS)
- Law Enforcement
- Fire Protection

€ Assess and determine the county's and participating municipalities' available public and non-public eclipse viewing and support areas and spaces:

Eclipse Viewing Areas

- | | |
|---|-----------------------------|
| ▪ Stadiums | ▪ Liquid waste |
| ▪ Parks | ▪ Fresh water |
| ▪ Open fields | ▪ Concessions |
| ▪ College, school and church grounds | ▪ First aid stations |
| ▪ Fairgrounds | ▪ Security |
| ▪ How many viewing areas will there be? | ▪ Access/egress |
| ▪ Trash removal | ▪ Concessions/Meals |
| | ▪ Viewing area registration |
| | ▪ Health inspections |

Viewing Site Logistics

- At 3,200 people per acre, it requires approximately 10 acres for 30,000 people standing to view the eclipse
- 1,000 sq. ft. per RV = 35 RV per acre
- 240 sq. ft. per campsite = 145 tents per acre
- 160 sq. ft. per parking space = 220 cars/trucks per acre
- Portable toilets = 13 per 1,000 people
- Recommended water consumption = 96 ounces per person per day or 6 each, 16 ounce bottles per person per day



- Where parking will be permitted
- How many parking spaces will be needed
- How parking area security will be provided

Indoor gathering and warming areas

- Civic buildings
- Colleges
- Schools
- Churches
- Meeting halls
- Fire and police stations

€ Determine areas, facilities, infrastructure, resources, etc. that will have high use rates:

Lodging and Restaurant Facilities (temporary lodging options should be considered)

- Determine number of expected people by area
- Determine available and needed lodging capacity by area: campgrounds, public land, hotels, motels, Air B&Bs, Bed and Breakfasts, hostels, resorts, etc.
- Determine need for temporary lodging facilities and policies
- Determine restaurant capacities and supplies

Camping Areas (temporary camping options should be considered)

- Determine camping site availability and restrictions
- Determine locations for existing and temporary overnight camping
- Determine need for adjustments to current policies
- Determine stay limitations
- Determine camping fees and camping support needs
- Determine need for camping gear rental supplies
- Private property camping
- Camping on local public land
- Camping locations and other considerations

Trash removal
Liquid waste (port-a-pottys)
Fresh water
Fires
Concessions

Camping site sizes (footage)
First-aid stations
RV camping on alternative sites
Self-contained RVs



- Law enforcement
- Fire response
- Emergency medical services
- Trash collection and disposal
- Cellular service
- Electricity
- Etc.

Infrastructure

- Roads
- Bridges
- Sewers
- Medical facilities (first aid, medical care, hospital)
- Parks
- Natural and forested areas
- Public gathering areas

€ Determine and organize how viewing and parking areas will be:

- Determined
- Regulated
- Managed
- Supported

€ Prepare plans for working with:

- Traffic and parking management operations (ingress, on-site, egress)
- Local law enforcement, emergency medical services, and local fire response services
- Emergency management services
- Mass care services (food, water, medical services)
- Food Trucks
- Local Markets
- Farmers Markets

€ Other Considerations

- Local laws that will impact eclipse viewing
- Existing event plans and documents, as applicable)
- Alcohol permits (if applicable)
- Noise ordinances



Ohio EMA – Local Eclipse Planning & Preparation Guidance

- Curfew
- Parking Laws
- General public gathering ordinances
- General camping and lodging rules and regulations



Organizing Community Events

Eclipse2024.com – facilitated links that will allow you to post your communities information.

The following information is provided as guidance for planning, organizing and publicizing local eclipse-related activities.

Basic Considerations

- € Determine and publicize community-relevant information, events planned, and contact information for planned eclipse viewing and educational activities.
- € Arrange for, organize and facilitate local astronomy lectures and other educational opportunities for schools, civic groups, etc.
- € Organize, coordinate and facilitate the renting-out of eclipse viewing parking spaces and available land to raise money for non-profits or community-funded operations. For the 2017 eclipse event, most local jurisdictions required viewers to reserve and pre-pay for eclipse viewing sites.
- € Work with local schools, churches, civic groups, libraries, museums, and other organizations to organize and plan local eclipse viewing and educational activities.

Educational and Social Programming

Arts Programming

- € Eclipse Photography – How-To's, What to expect, What Equipment to Use
- € Reading/Writings – Reading of Original Work, Readings of Historical Passages - Open Discussion

Technical Activities and Experiments

- € Organize and arrange for experts to speak to schools and community groups about the eclipse and other astronomical topics
- € Research eclipse-related demonstrations and experiments that can be presented to schools and community groups.



Social and Cultural Programming

- € Arrange, organize and present programs on eclipse mythology
- € Arrange, organize and present programs on famous eclipses in history
- € Arrange, organize and present programs on the spiritual and emotional effects of eclipses
- € Arrange, organize and present programs for star gazing

Educational Programming

- € Communicate the eclipse event with local schools and educational institutions
- € Educate the public, and specifically school districts on eclipse viewing eye safety
- € Make a plan for how to get schools involved, and what kind of programs or demonstrations can safely be done at schools, public parks, etc.
- € Establish a visiting expert program and an expert speaker program

Eye Safety

- € The only safe way to look directly at an uneclipsed or partially-eclipsed sun is through special filtered glasses known as “solar eclipse viewing glasses.”
- € The American Astronomical Society is a good source of information on eclipse viewing glasses that meet the ISO 12312-2 international standard for such products
- € Rainbow Symphony, American Paper Optics, and Thousand Oaks Optical are a few producers of solar eclipse viewing glasses. These products can be bought directly through their websites or through eclipse websites such as:

http://www.eclipse2024.org/glasses_order.htm

<https://www.greatamericaneclipse.com/store>

- € It is suggested that local jurisdictions should work with local and regional private sector entities to finance, procure and brand local Solar Eclipse Viewing Glasses and other necessary resources and materials.
- € Careful consideration must be given to ordering solar eclipse viewing glasses and other needed materials and resources well in advance of the eclipse event.



Fire Safety

- € Wildfires could be associated with greater camping density and outdoor use of public areas.

Weather

- € Local jurisdictions should prepare to respond to early-April temperatures that can range from the upper-20s to the 60s.
- € The possibility of cloud cover at viewing sites could cause people to shift their viewing location prior to the event, or at the last minute.
- € Local jurisdictions should work with the National Weather Service and local forecasters on predicting weather prior to the event.

Post-Eclipse Activities

- € Organize events to share eclipse art (photographs, drawings, poetry, etc.)
- € Report local findings and compare them to historical findings
- € Organize open discussions about how the eclipse impacted the community
- € Engage in an after-action reporting process to review and report on positive and negative experiences.

General Eclipse Resources

There are a number of good online resources for eclipse information and planning. These are some of the best:

- € <https://eclipse2024.org>
- € <https://eclipse2024.nasa.gov/>
- € <http://www.skyandtelescope.com/astronomy-news/observing-news/planning-workshop-for-2017-solar-eclipse-082620155/>
- € www.beingintheshadow.com
- € <https://www.greatamericaneclipse.com>
- € <http://eclipsophile.com/>
- € <https://eclipse.aas.org/>

Planning Questions and Considerations



- € How many additional people are we expecting there to be on in our jurisdiction in the days before, during and after the total solar eclipse event?
- € How many viewing venues (public and private) does the jurisdiction need to plan for to accommodate the expected number of eclipse viewers?
- € Where will the public viewing sites be located?
- € Does the jurisdiction need to rent land from landowners?
- € How will profit-sharing with contractors and subcontractors be handled?
- € What site preparation needs to be done?
 - Mowing
 - Dust abatement
 - Fencing
 - Human services
 - Site map/layout development
- € How many acres does the jurisdiction to allot for:
 - Cars/parking (at 220 cars/trucks per acre):
 - o How much to charge for parking?
 - Campsites (at 145 campsites per acre):
 - o How much to charge for camping?
 - RV parking (at 35 RV's per acre):
 - o How much to charge per RV?
- € How many concession stands/food outlets does the jurisdiction need to have?
- € How many meals can the jurisdiction arrange to be served (per hour)?
- € How many hours per day will food service outlets need to operate per day (meals, preparation, clean-up)?
- € How will the pre-selling and accounting of viewing space and parking space tickets be organized and facilitated?
- € How will the jurisdiction organize and devise plans (manpower and resources) for:



- Food service
- Ancillary equipment; lighting, fencing, other
- Security
- Transportation & Parking volunteers/workers
- How many TOTAL volunteers
- Use locals only
- Where to use (prioritized)
- Partner with community organizations and non-profits
- Solid trash management
- Portable toilet maintenance
- Hydration stations
- First aid stations
- Showers and sinks
- Gray water management (Health Dept.)
- Bike racks to handle additional bikes
- Pet management

- € How many buses/vans/cars will be needed to execute park and ride strategies?
- € How many trash pick-up points will be needed?
- € How often should trash pick-up points be serviced?
- € How often will portable toilets should be serviced per day?
- € How many toilet service trucks will be needed?
- € Where will liquid waste be dumped?
- € How many hydration stations will be needed?
- € How many shower facilities will be needed?
- € How many first aid stations will be needed, and who will staff them?
- € How much lighting equipment will be needed?
- € How much fencing will be needed?
- € How much law enforcement assistance will be needed?
- € How much first responder assistance will be needed?
- € How much medical services assistance, personnel and resources will be needed?



- € What will the jurisdiction need to do to devise a local community preparation and support plan?
 - Food and water
 - Fueling vehicles
 - Having cash on hand
 - County/City office closures
 - Fire bans
 - Public safety considerations

- € What mutual aid assistance will be needed from outside entities?

- € What county and local municipality event specific insurance coverage/protection needs to be considered?

- € What internet management issues need to be considered?
 - Website creation
 - Posting preparations & plans
 - PayPal or other means to handle ticket presales and merchandise credit card transactions
 - Preselling parking/camping/RV/viewing from venue
 - Entertainment and events supporting the eclipse
 - Pre-selling of T-shirts and other clothing, hats, water bottles, etc.
 - Linking to other websites
 -
 - Management and linking of Eclipse calendar

- € What is the jurisdiction's permitting plan?
 - How many permits should/will be issued, and for what
 - Permit application process
 - Permit issuing criteria
 - Permit approval process
 - Permit fees
 - Permit enforcement process



Eclipse Event Press Release Template

Contact:

(Community Contact Person)

(Phone Number)

(Email)

For Immediate Release

(Enter City) Announces Community Events for 2024 Total Solar Eclipse

(CITY, Ohio (Xxx. XX, 20nn) – The city of XXX is gearing up for the upcoming April 8, 2024 total solar eclipse. (CITY) is in the path of totality – where the moon passes between Earth and the sun, blocking the sun’s light completely, which is a rare phenomenon. The last time a total solar eclipse occurred across the entire United States was in 2017, and before that was in 1918. The last time a total solar eclipse was visible in Ohio was in 1806, and following the 2024 event, the next total solar eclipse won’t be visible in Ohio until the year 2444. Understandably, this rare event will bring many travelers to XXX.

We are planning along with our partners to make this a special and safe experience. (List your partners here. *Suggested partners include: local Convention Visitors Bureau, Chamber of Commerce, local police and fire departments, Parks and Recreation*) there are a number of community events taking place in celebration of the eclipse. See below for additional information.

Event #1

Event date & time

Event location

Brief description of event

Event #2

Event date & time

Event location

Brief description of event



Ohio EMA – Local Eclipse Planning & Preparation Guidance

If you are planning to view the eclipse, please ensure you are using proper eye protection.

While the total solar eclipse can be viewed safely with the naked eye, the partial eclipse (which occurs before and after totality) requires special eclipse glasses. Keep in mind that sunglasses are not enough protection for your eyes. These special glasses can be found online for purchase.

For more information, please contact XXXX at XXX@emailaddress.com or (XXX)-XXX-XXXX.

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SAMPLE WORKSHEET I – AVAILABLE LODGING

PROPERTY NAME	ADDRESS	PHONE	CONTACT



SAMPLE WORKSHEET II: COMMUNITY CONTACTS

We highly encourage you to curate a contact list of individuals within your community who can offer insight and support leading up to and on eclipse day.

Local Eclipse Contact		
Name:	Phone	Alternate Phone
Astronomy Expert		
Name	Phone	Alternate Phone
Media Contact		
Name	Phone	Alternate Phone
Meteorologist Contact		
Name	Phone	Alternate Phone
Government Contact		
Name	Phone	Alternate Phone
Ohio Department of Transportation Contact		
Name	Phone	Alternate Phone
Mayor		
Name	Phone	Alternate Phone
Police/Ambulance		
Name	Phone	Alternate Phone
Fire Department		
Name	Phone	Alternate Phone

**Job titles are suggestions that we believe would be beneficial to having available on a local level. Feel free to add to or take away from this list based on your individual community needs.*

*****Add Email column



SAMPLE WORKSHEET III: COMMUNITY ACTION PLAN

(Courtesy of the Teton County Idaho Ad Hoc Eclipse Committee)

Date Captured	Action Items	Due Date	Resp Name	Status	Comments	Date completed
	Emergency Management Plan					
	1. Law Enforcement					
	2. Fire & Ambulance					
	3. Emergency Communication					
	4. S&R					
	5. Identification of "Critical Equipment & Supplies"					
	6. Wildfires					
	7. First Aid Stations					
	8. Emergency Fuel Supply					
	9. Designated Emergency Services Lane					
	10. Traffic Control					
	11. Security					
	12. Alcohol Beverage Control					
	13. Incident Command Structure					
	14. Mobilization/Demobilization Dates					
	Health & Safety					
	1. ADA Access					
	2. Pet Management					
	3. Eclipse Eyewear					
	4. Hydration Stations					
	5. Health Inspections: Food Services & Sanitation					
	Tests, Drills, and Exercises					
	Risk Assessment					
	Mitigation Plan					
	Permit Management & Enforcement					



SAMPLE WORKSHEET IV: TRANSIT ACTION PLAN

(Courtesy of the Teton County Idaho Ad Hoc Eclipse Committee)

Date Captured	Action Items	Due Date	Resp Name	Status	Comments	Date completed
	Downtown Parking					
	a. Signage - Cities					
	b. Signage - County/Hwy					
	c. Overflow parking areas (including RVs)					
	Transit					
	a. Transit providers					
	b. Routes, schedules, fares, signage					
	c. Park & ride locations					
	d. Camping locations					
	e. Event locations					
	Emergency Vehicle Access & Alternate Routes					
	a. Signage					
	Airport Traffic Preparation					
	Support Systems Alerts					
	a. Fuel					
	b. Towing					



SAMPLE WORKSHEET V: PUBLIC WORKS ACTION PLAN

(Courtesy of the Teton County Idaho Ad Hoc Eclipse Committee)

Date Captured	Action Items	Due Date	Resp Name	Status	Comments	Date completed
	Solid Waste					
	Reserve Additional Dumpsters					
	Satellite Dumpsters					
	Additional Delivery to Transfer Station					
	Additional Pickup Points					
	Coordinate with Permitting					
	Coordinate with Cities					
	Wastewater					
	Porto-lets					
	Reserve Porto-lets					
	Delivery/Rental					
	Coordinate w/ permitting					
	Coordinate w/ Cities					