# INDIANA MESONET ADVISORY BODY BYLAWS

## ARTICLE 1 – NAME AND AUTHORIZATION

## A. NAME

The Indiana Mesonet Advisory Body (IMAB) shall be considered a committee, and may be herein referred to as the "Body", "Council", or "IMAB".

## B. AUTHORIZATION

The Advisory Body exists by the authority of the Indiana State Climate Office ("IN-SCO") and may be modified or abolished by action of the Director of the IN-SCO. Appointment and service on this board will be in a voluntary, uncompensated role.

## ARTICLE 2 - MESONET DEFINITION

#### A. MESONET

A "mesonet" is defined herein as a network of automated environmental monitoring stations designed to observe meteorological phenomena, such as weather and shallow soil parameters, at a mesoscale spatial resolution (1-250 kilometers in spacing) and at operational sub-hourly intervals.

Mesonet sites may also collect additional measurements such as deeper soil conditions, groundwater levels, surface water, and other variables relevant to the complete hydrologic water balance cycle.

The purposes and applications of critical data collected by a Mesonet serve various public and private sectors, including, but not limited to:

- **Emergency management:** Providing sub-hourly, real-time data for disaster preparedness, response, and recovery.
- **Public health and safety:** Monitoring environmental and weather conditions that impact public well-being, including contributing to more detailed and accurate hazardous weather warnings and fewer false alarms.
- Weather forecasts: Improved monitoring of local weather conditions that can be shared with the National Weather Service, as well as private weather forecast companies, for more detailed and accurate forecasts that are actionable and can enhance the state economy.

- Agricultural planning, production, and sustainability: Supporting informed decisions for crop management, livestock, and resource optimization. Data can also be used to track areas of drought as well as flooding.
- Water resource management: Aiding in the efficient monitoring, allocation, and conservation of water resources and their interactions with rock, sediment, soil, and the atmosphere.
- **Historical data monitoring:** Contributing to long-term data records and trend analysis to help anticipate future demands on water and energy utilities.
- **Infrastructure management:** Informing decisions related to the maintenance and resilience of critical infrastructure.
- **Economic vitality:** Supporting industries and sectors reliant on accurate environmental information, such as public utility companies.
- Education and training: Leveraging the mesonet and its products to improve public and student understanding of science, technology, engineering, and the natural environment.

Mesonet sites are engineered to collect, at a minimum, standard atmospheric parameters within 10 meters of the ground and shallow soil conditions (e.g., temperature, moisture) within 1 meter of the surface. These are considered high-quality, research-grade stations, adhering to defensible quality control and assurance practices. Site visits for sensor calibration and integrity assessments will occur at least semi-annually, or as indicated by acceptable calibration management practices and guidelines, such as those from the American Association of State Climatologists (AASC) Recommendations and Best Practices for Mesonets. The data from this network will meet high standards of quality, ensuring confident and reliable use.

## B. GOVERNANCE AND EXPANSION OF THE INDIANA MESONET

Current and future Indiana Mesonet stations, as defined in Article 2 Section A, that are installed, maintained, and managed by the IN-SCO, shall constitute the primary network of Indiana mesonet stations. The inclusion of other high-quality atmospheric or water monitoring stations and/or networks from across Indiana into this primary network is encouraged. It shall be considered for recommendation by the IMAB to the IN-SCO. This collaborative approach aims to establish a centralized, consistent, and publicly accessible platform that consolidates all approved monitoring stations statewide, enabling them to be promoted and shared by all affiliated networks. The consortium of all such stations into a single network shall herein be referred to as the "Indiana Mesonet." All Indiana Mesonet data shall be freely available online via an IN-SCO-managed website, with each network clearly identified within the consortium.

#### ARTICLE 3 – PURPOSE AND FUNCTION

#### A. PURPOSE

IMAB will strategically advise the Director of the IN-SCO and the directors of any other Indiana monitoring programs formally recognized and accepted by IMAB (hereafter referred to as "Directors of the Indiana Mesonet"). This advisory role focuses on the strategic development, advancement, and expansion of the Indiana Mesonet, including integration of other observing networks in accordance with its mission and these Bylaws.

#### B. FUNCTION

The functions of the IMAB shall include, but not be limited to, the following:

- Contribute to a dynamic strategic planning process for the Indiana Mesonet that aids in the installation, consolidation, enhancement, and optimization of Indiana's atmospheric and water monitoring networks.
- Identify opportunities to facilitate the development and implementation of public and private sector partnerships consistent with the Indiana Mesonet's strategic plan.
- Evaluate and advise the Director(s) of the Indiana Mesonet on the formal recognition and inclusion of other mesonet and monitoring programs into the Indiana Mesonet Network.
- Suggest possible sources of funding and innovative utilization of the Indiana Mesonet to promote and enhance public safety, economic benefits, and other purposes and applications as outlined in Article 2 Section A.
- Collaborate with state officials to incorporate data obtained from the Indiana Mesonet into a statewide air and water inventory that includes a comprehensive management plan.
- Evaluate where critical atmospheric and water monitoring gaps exist across Indiana and make recommendations as to the types of monitoring devices/instruments that are needed to collect data and improve monitoring effectively.
- Promote ethical data stewardship by ensuring open access, transparency, and responsible data use; support education and outreach initiatives; foster collaboration among stakeholders; and recommend continuous improvements to enhance the network's value and public benefit.

The IMAB will serve as the principal facilitator for collaboration among public agencies, private stakeholders, academia, local communities, and any other relevant entity regarding the expansion and functionality of the state mesonet and the subsequent viability and usability of its data.

## ARTICLE 4 - MEMBERSHIP

## A. MEMBERS

Any person representing an organization or in an at-large position on the council may be herein referred to as a "member" of the council. The member representative will be designated by their organization for each meeting, and their actions will be considered representative of their associated organization.

The Council shall comprise an odd number of member organizations and at-large members, with a total of no fewer than seven and no more than thirteen for voting. No sitting member shall be employed or subcontracted by any of the officially recognized networks that comprise the Indiana Mesonet. Efforts should be made to diversify the Council across

federal, state, and local governments, non-government organizations, the private sector, and other key stakeholders. The Director(s) of the Indiana Mesonet are not official members of the Advisory Council, but are included in the Executive Committee (see Article 6.A. Executive Committee).

In addition to voting members, the Body may include non-voting members who serve in an advisory capacity. These individuals may consist of technical experts, representatives from local governments, private sector stakeholders, or other subject-matter specialists whose participation supports the Council's mission and enhances technical and strategic decision-making. Non-voting members may contribute to discussions and provide recommendations, but do not hold voting privileges.

The following list comprises the recommended initial members of the IMAB, in no particular order;

- 1. Indiana Department of Natural Resources
- 2. Indiana Department of Homeland Security
- 3. Indiana Finance Authority
- 4. Indiana Department of Agriculture
- 5. Indiana Farm Bureau
- 6. National Weather Service State Liaison Office
- 7. Miso Energy
- 8. Broadcast or Private Sector Meteorologist
- 9. At Large Member or additional organization 1 (may include, but not limited to, the Indiana Department of Transportation, United States Department of Agriculture Natural Resources Conservation Service, and United States Geological and Water Survey)
- 10. At Large Member 2
- 11. At Large Member 3
- 12. Additional Organization or At Large Member 4
- 13. Additional Organization or At Large Member 5

#### B. TERMS OF MEMBERSHIP

Membership for Organizational and At-Large Council seats does not expire. However, the IMAB may opt to remove, replace, or add seats to the membership Council through an amendment proposal, requiring a two-thirds majority vote of the active membership for approval. Any individual representing an agency or holding an at-large Council seat is expected to possess full authority to provide input, make motions, cast votes, and perform other Council duties as needed.

#### C. VACANCIES AND MEMBER REMOVAL

If a member/organization vacates their seat on the Body, the remaining membership will decide by a majority vote whether or not to fill that position with a similar organization or representation, or an entirely new organization. Members should ensure their designated seat is occupied at all council meetings. If a representative is unable to attend a meeting, advance notification should be provided to the council officers as soon as feasible, with at least 24 hours' notice to facilitate the determination of a quorum. In instances where an organization/member or at-large representative consistently fails to fill their seat for scheduled meetings and votes, the council may determine that the associated agency or at-large seat no longer adequately represents its interests within the IMAB. Any council member may propose a motion to vacate, remove, or replace a council seat, which requires a  $\frac{2}{3}$  vote of all voting IMAB members for approval.

#### ARTICLE 5 – OFFICERS

#### A. OFFICERS

The officers of the Council shall be a Chair, Vice-Chair, and Secretary, each of whom shall be elected annually by the membership, and who shall hold office at the pleasure of the membership.

## B. CHAIR

The duties of the Chair shall be, having ascertained a quorum, to call the meeting of the Council to order at the scheduled time and to preside over the meeting, to sign, as necessary, all acts, recommendations, and proceedings of the Council, and to provide a summary of actions and recommendations approved by the Council and documented by the Secretary to the Director of the IN-SCO and other recognized mesonet directors in Indiana within fifteen business days following meeting.

#### C. VICE-CHAIR

The Vice-Chair shall preside and serve in the Chair's absence and shall fill the unexpired term if the Chair is unable to complete the full term of office. The Vice-Chair will fulfill any obligations in the absence of the Chair and perform other duties as assigned by the Chair.

## D. SECRETARY

The duties of the Secretary shall be to keep a record of the proceedings, actions, and recommendations of the Council, to keep a roll of the Council's membership, to notify officers and committee members of their election or appointment, to sign all certified copies of acts of the Council, to maintain records of the bylaws, to notify the Council of meetings, to prepare an order of business for use by the presiding officer, and, in the absence of the Chair or Vice-Chair, to call the meeting to order and preside until the immediate election of a chair pro tempore. All recorded minutes, documents, and records from meetings and applications will be sent to the IN-SCO for official archival for at least 5 years.

The Secretary may or may not be an official member of the Council and can be appointed at the discretion of the Chair.

## E. ELECTIONS

Officers shall be elected at the fourth quarter meeting (October to December) and assume office effective on January 1.

## ARTICLE 6 – COMMITTEES

#### A. EXECUTIVE COMMITTEE

The officers of the Council, as well as Director(s) of the Indiana Mesonet, shall constitute the Executive Committee. The Executive Committee shall have general supervision of the affairs of the Council between its meetings, fix the hour and place of meetings, and perform such other duties as are specified in these bylaws.

## **B. OTHER COMMITTEES**

The Executive Committee may establish or dissolve other committees, whether standing or ad hoc, as deemed necessary to advance the work of the council. These appointments can be made independently by the Executive Committee or following recommendations from the IMAB. Below is an example list of committees that the Executive Committee may establish.

- Technical and Operations Committee instrumentation, siting, standards, and maintenance
- Data Management and Access Committee data quality, accessibility, and integration
- Outreach and Education Committee communication, stakeholder engagement, and training
- Finance and Development Committee grants and funding partnerships

### C. EX OFFICIO STATUS

The Chair of the Council shall be an ex officio member of all committees except the Nominating Committee if one is established.

#### ARTICLE 7 – MEETINGS

#### A. REGULAR MEETINGS

The Council shall meet four times per year, at least once per quarter. Each quarter will be defined as follows:

- First Quarter January to March
- Second Quarter April to June
- Third Quarter July to September
- Fourth Quarter October to December

The Executive Committee will designate the time and place for each meeting. The Executive Committee shall provide members with a notice of at least fourteen days regarding the date, time, and location of each meeting. Meetings may be held in person, virtually, or hybrid. However, at least one meeting per year must be held in person.

#### **B. SPECIAL MEETINGS**

Special Council meetings may be called by the Chair or a majority of the Executive Committee. It is recommended that a notice of at least five days be given unless deemed an emergency by the Chair or the majority of the Executive Committee. Such meetings may be held via teleconference.

## C. QUORUM AND VOTING DELEGATION

A majority of the Council membership (more than 50 percent) shall constitute a quorum to hold a meeting, take any action, or conduct a vote.

A person attending a meeting representing one of the recognized IMAB members will be considered a voting member and will represent the interests of the seat occupied by the member. More than one member of any Council organization may attend routine meetings and participate in discussions, but only one member per seat shall be allowed to vote. In the case of special meetings, it will be up to the Executive Committee to determine if meetings are open to non-voting parties.

In the event any Council seat cannot be represented in-person or virtually at a voting meeting, a designated proxy vote may be submitted. In such an occurrence, notification of this delegation shall be made to the Chair or Chair-Elect, at least one day (24 hours) in advance of the meeting.

#### ARTICLE 8 – SUNSET PROVISION

The Director of the IN-SCO will review the Council's activities and accomplishments after the fourth quarterly meeting (October to December) of even-numbered years to determine if the Council should continue its activities.

## ARTICLE 9 – ADOPTION, AMENDMENTS, AND REVIEWS

## A. ADOPTION OF BYLAWS

Adoption of the initial, proposed Bylaws of the Indiana Mesonet Advisory Body shall be by a group of temporary member organizations as selected by the Indiana State Climatologist. These members should represent at least 5 of the agencies/at large seats that have been proposed as permanent IMAB members within Article 4 Section A, and any other organizations or groups deemed appropriate for inclusion by the IN-SCO, so long as an odd number of voting members are selected. Adoption of these Bylaws shall be by a majority vote of this appointed membership, and if approved, will take effect immediately upon adoption.

#### B. AMENDMENTS

Any member of the established Council may recommend amendments to the Bylaws. A two-thirds majority vote of the Council member organizations/individuals is required for passage.

Voting may be conducted via email ballot or proxy for each member organization that cannot be present in person. Proposed amendments should be provided to all IMAB members at least 30 days before a scheduled vote unless deemed an emergency by the Executive Committee.

#### C. REVIEWS

These Bylaws shall be subject to an annual review by the Executive Committee, no later than the end of the first quarter of each calendar year. The purpose of this review is to assess their effectiveness, identify any necessary revisions or amendments, and ensure they continue to reflect the best interests and governance of the organization. Any recommended changes or amendments shall be presented to the IMAB for discussion and a vote per Article 9 Section B.

## ARTICLE 10 – STANDARDS, APPLICATION, MEMBERSHIP, AND TERMS OF INCLUSION

# A. Indiana Mesonet Membership Requirements & Application

Membership in the Indiana Mesonet, as outlined in the Membership Requirements document, is extended to environmental monitoring networks that demonstrate adherence to the principles and standards established in these bylaws and the Membership Requirements document. Membership criteria are evaluated across five core categories:

- 1. Station Siting: Placement of stations in locations that represent the mesoscale environment well, avoiding local obstructions and microclimates.
- 2. Sensor Performance: Use of rugged, reliable, and accurate sensors that meet minimum sampling and reporting standards.
- 3. Station Maintenance: Routine and emergency maintenance protocols to ensure continuous, high-quality data collection.
- 4. Quality Assurance and Quality Control: Implementation of documented, shareable procedures for automated and manual data QA/QC.
- 5. End-to-End Data Services: Reliable data archiving, automated access, user-friendly display, value-added data products, and active external partnerships.

Networks will be reviewed and scored based on their ability to meet the criteria within each category's rubric. A Level 3 or higher in all categories and subcategories is required to gain and retain membership.

## **B. APPLICATION**

To be approved for membership, external networks or clusters of monitoring stations must meet the standards established in the Indiana Mesonet Membership Requirements and the AASC Mesonet Recognition Program Requirements and Procedures. Interested applicants should submit documentation demonstrating compliance with these standards. The membership application and rubric are available on the Indiana Mesonet website [INSERT URL].

Any formal network or group of monitoring stations that meets the definition of a mesonet (as defined in Article 2.A) or would significantly enhance the statewide network may apply for membership. Applications shall include the materials specified in Section 4.2 of the Indiana Mesonet Membership Requirements and be submitted in writing to the Body Chair. Applications must include a justification for membership.

#### C. MEMBERSHIP REVIEW AND APPROVAL

Upon receipt of a complete application:

- 1. The Chair will assign three Body members to review the application using the established scoring rubric independently.
- 2. Following independent reviews, the whole Body shall review the results and determine whether the applicant has satisfactorily met all membership requirements (Level 3 or higher in all categories).
- 3. If independent reviews disagree on one or more categories, the Body shall deliberate and, if necessary, vote to determine the network's acceptability.
- 4. Any Body member affiliated with the applicant network must recuse themselves from the review process.

Upon completion of the review, the Chair shall notify the applicant in writing, providing:

- A summary of the Body's final decision (approval or denial).
- Copies of reviewer comments and category scores, presented in a manner that protects reviewer confidentiality.

Review documents will be shared only with the applicant and will not be made public.

Approved networks will have their data integrated into the Indiana Mesonet Data Hub, a publicly accessible portal. The Director of the IN-SCO will coordinate with the approved network's director to integrate real-time and historical data into the Mesonet database and website. The newly approved network director will also become a member of the IMAB Executive Committee upon formal acceptance into the network.

## D. MEMBERSHIP TERMS AND RESPONSIBILITIES

Once approved, member networks must maintain ongoing compliance with all standards outlined in the AASC Recommendations and Best Practices for Mesonets and the Indiana Mesonet Membership Requirements.

## 1. Site Access and Compliance:

IMAB members may visit any network site, with proper notice to the network Director and/or property owner, to verify compliance or assess issues. Network Directors shall inform landowners of the IMAB's oversight authority and site visit provisions.

## 2. Reporting:

All member networks shall submit a quarterly status report to the IMAB, including at a minimum:

- Current operational status and known data issues.
- Recent or planned maintenance activities.
- Upgrades, decommissions, or planned new station installations.

These reports enable the Body to maintain awareness of network performance and progress.

# 3. Reapplication:

Membership is valid for five years, after which networks must reapply for continued membership. Failure to reapply will result in membership expiration unless a deferment request is submitted and approved by the Body. Lapsed networks may reapply under the same procedures described in Section 10. B.

#### E. NON-COMPLIANCE AND TERMINATION

If the IMAB determines that any specific site, equipment, or the network itself is not up to AASC AND Indiana Mesonet Membership requirements, the following steps may be taken.

#### 1. Formal Notice:

The IMAB shall issue a written notice outlining deficiencies and requesting corrective action within a reasonable timeframe determined by the Body.

#### 2. Remediation Period:

IMAB will work collaboratively with the network's Director to resolve issues during the specified period.

## 3. Further Action:

If no acceptable actions are taken within the documented timeframe, IMAB may take further action through the formal process of a discussion, motion, and majority vote of the IMAB members. Such actions may include, but are not limited to:

- Temporary suspension of the network from the Indiana Mesonet
- Removal of the Director in charge of the problem network from the IMAB Executive Board
- Removal of the individual site or entire network in question from the Indiana Mesonet
- Other actions as deemed appropriate by the IMAB

## ARTICLE 11 – CONFLICT OF INTEREST

#### A. PURPOSE

The purpose of this policy is to protect the integrity, credibility, and independent judgment of the Body by ensuring that its members act in the best interests of the organization and the public it serves. All IMAB deliberations and decisions must be free from undue influence arising from personal, financial, or organizational interests.

#### B. DEFINITION

A conflict of interest exists when a member's personal, professional, or financial interests—or those of an immediate family member or affiliated organization—could reasonably be perceived as influencing their objectivity, independence, or fairness in performing their IMAB duties. Conflicts may include, but are not limited to:

- Employment, consulting, or financial relationships with entities that have current or prospective partnerships, contracts, or funding relationships with the Indiana Mesonet or the Indiana State Climate Office.
- Ownership or investment interests in companies that manufacture, sell, or service meteorological or hydrological equipment used by the Indiana Mesonet.
- Situations in which a member's outside commitments compromise their ability to devote proper time and attention to IMAB responsibilities.
- Any matter in which a member's participation may result in personal benefit, direct or indirect, from IMAB or Indiana State Climate Office actions.

## C. DISCLOSURE REQUIREMENTS

Members must disclose any actual or potential conflict of interest as soon as it becomes known. Disclosures may be made verbally at a meeting or in writing to the Chair or Secretary. The disclosure and any related actions shall be recorded in the meeting minutes.

## D. RECUSAL AND PARTICIPATION

Members with a conflict shall abstain from voting on the affected issue and may be excused from related discussion at the discretion of the Chair. If the Chair is the member with a potential conflict, the Vice-Chair will assume this responsibility for that matter.

#### E. OVERSIGHT AND ENFORCEMENT

The Executive Committee shall oversee compliance with this section and determine appropriate actions when conflicts arise. Failure to disclose a conflict or comply with this policy may result in disciplinary action, including removal from the Body, by a two-thirds vote of the voting membership.

#### F. RECORD KEEPING

The Secretary shall maintain a record of disclosed conflicts, recusals, and related decisions in the official meeting minutes and archive them for at least five years.