National Aeronautics and
Space Administration

# Environmental Justice Strategy

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NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

ENVIRONMENTAL JUSTICE STRATEGY

## A. Charter

On February 11, 1994, President Clinton issued two documents (1) Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations (see appendix A), and (2) a Presidential Memorandum for the Heads of All Departments and Agencies; Subject: Executive Order on Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations (see appendix B).

Executive Order No. 12898 mandates each Federal agency to make achieving Environmental Justice (EJ) part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its actions on low-income populations and minority populations in the United States and its territories and possessions, the District of Columbia, the Commonwealth of Puerto Rico, and the Commonwealth of the Mariana Islands. One element of Executive Order No. 12898 requires each Federal agency to develop an agencywide EJ strategy. The Presidential Memorandum expands on the Executive order and identifies the applicability of Title VI, the Civil Rights Act of 1964 and the National Environmental Policy Act of 1969 (NEPA), as amended (42 U.S.C. 4321 *et seq.*).

## B. Policy and Goals

NASA will integrate EJ issues and concerns into all of its programs, policies, and activities. In doing so, the Agency intends to execute this mandate promptly and effectively, while keeping the administrative burden at the minimum level necessary. Public outreach and involvement will be a primary focus of the Agencywide implementation of EJ. NASA Centers are located in a wide variety of locations ranging from urban environments to sites far removed from the general population. Socioeconomic circumstances in the surrounding communities, the types of activities and programs conducted, and the environmental impacts associated with such operations differ widely among the various Centers. Because of this diverse mix of location, demography, and activity, NASA's EJ Strategy provides a broad framework of the items that need to be accomplished to achieve EJ and meet the requirements of Executive Order No. 12898. Each NASA Center is responsible for developing its own EJ Implementation Plan. Each Plan will take into account the activities conducted at the Center and their environmental impacts, its organizational

structure and existing processes, the nature of the surrounding community, and the most effective means of communication with external stakeholders.

Human health and adverse environmental impacts can arise in two ways--normal operations and accidents. Both circumstances must be taken into account. Similarly, EJ concerns may be associated with (1) existing operations and programs, or (2) modified or new activities, projects, and programs. The process for addressing EJ may be different for existing activities than for those that are new.

## C. Organization

As indicated in the previous section, the organizational structure to execute the EJ mandate may vary widely among Centers. It is the Center Director's responsibility to select the organizational structure to best satisfy the requirements of Executive Order No. 12898 and the Presidential Memorandum.

NASA will have the following organizational elements to execute the EJ mandate:

1. NASA EJ Coordinator: This individual will have overall Agencywide responsibility for integrating EJ into the Agency's policies, programs, and activities. The Director of the Environmental Management Division (Headquarters) or designee will serve in this capacity.

2. NASA EJ Coordinating Committee (EJCC): This group will be responsible for (a) reviewing Center EJ plans, (b) keeping the NASA EJ Strategy current by acknowledging changed conditions, successes, and problems experienced by the Centers, and suggestions from parties both within and outside of the Agency, and (c) developing and implementing tools to measure progress toward meeting the goal of EJ. NASA's Environmental Management Council or a group selected to support it will serve as the EJCC.

3. Center EJ Coordinator: Each Center will designate an EJ Coordinator who will be responsible for integrating EJ concerns into its policies, programs, and activities. If a Center has a satellite facility, it may choose to designate an EJ Coordinator for that facility.

## D. Identification

The first step in establishing an effective Agency EJ program is to identify those situations where the potential exists within NASA for EJ concerns to arise. This will entail an evaluation of each NASA Center, its existing operations, and their associated environmental and human health impacts, and locations of interest that may be impacted by future proposed activities.

This analysis should be performed even if existing Center activities and programs have no substantial adverse impacts beyond the facility's boundaries. It is important that the information be available when new or revised programs or activities are being considered.

## E. Data Requirements

A vital factor in the identification process described in section D above is the gathering and generating of data. This task is essential to understanding the nature, scope, magnitude, and location of NASA-generated environmental impacts with EJ implications. Also, such information may be necessary to fine tune the Center's EJ initiatives, implementation schedule, and planned mitigation measures. Types of data and information to be considered include, but are not necessarily limited to, the following:

1. Socioeconomic information: The U.S. Census Bureau data, State planning and social service agencies, county and municipal governments, and social service organizations may be good sources. Organizations representing minority populations and low-income populations may be able to provide relevant information.

2. Health-risk data: State and local health departments may have relevant information. In addition, a variety of Federal agencies (*e.g.*, U.S. Environmental Protection Agency (EPA), Department of Health and Human Services) may be of assistance.

3. Environmental field tests and monitoring.

4. Environmental modeling: For certain media and factual situations, such computer-based mathematical models are available and credible. Such modeling may be required or preferable where field measurements are not feasible or impractical, are costly, or NASA is attempting to predict the environmental consequences of a proposed project.

## F. Communication

To achieve NASA's EJ goals, there will be Agencywide commitment to effective communication. The following groups will be targeted and involved:

1. Headquarters Senior Management - The Administrator will issue an Agencywide policy statement affirming the Agency's commitment to EJ implementation in program operations. Each Associate Administrator will discuss EJ with senior program managers who will ensure information dissemination to the operating/line manager. Senior managers will incorporate EJ into strategic planning documents for their program area of responsibility.

2. Center Senior Management - Center senior management officials will be briefed by appropriate members of the EJCC or other persons with expertise in EJ matters. Centers will have primary responsibility for implementation.

3. NASA Environmental Staffs - These groups are intimately involved with and have expertise in NEPA, site remediation, and similar environmental processes. They will be the office of primary responsibility for technical advice to the line manager on EJ and the means of avoiding or mitigating disproportionately high and adverse human health or environmental impacts.

4. Managers of Programs and Activities with EJ Implications - Line management will have primary responsibility for the integration of EJ and other environmental concerns into the planning process. Managers will examine the populations affected by existing operations, when expanding existing activities, or implementing new programs. Working with the public affairs staff, communication with low-income communities and/or minority communities will occur prior to execution of new NASA programs, and an ongoing dialogue will be maintained once the program is operational.

5. NASA Public Affairs Staffs - The environmental staff will keep the public affairs staff informed as the extent of any substantial adverse environmental impacts on a particular community or population are analyzed, so that the public affairs staff can handle local media and public inquiries effectively. The public affairs staff will issue press releases or other appropriate

forms of notification to inform the local community of the status and progress of EJ activities.

6. All Other NASA Personnel - Communication concerning EJ activities can be established with other NASA personnel by use of primarily internal Center communication mechanisms such as house newsletters, bulletin boards (both paper and electronic), and management discussions with employees.

7. Resident Agencies - Some Centers have other Federal and State agencies with activities on NASA property. Such operations should not conflict with NASA EJ efforts. The Center's environmental staff will ensure that a cooperative working relationship with these entities is established to ensure that EJ activities are coordinated when interagency projects are involved.

8. Contractors - Upon issuing a solicitation for onsite support services, the Center Procurement Office will incorporate requirements of Executive Order No. 12898 into the solicitation document. The Center's environmental staff will coordinate with the Center Procurement Office to implement these contractor requirements.

9. Targeted Public Outreach and Involvement - Dialogue should be established with potentially affected low-income communities and/or minority communities on the subject of EJ. The Center's public affairs staff will ensure the efficacy of community outreach activities by using the most appropriate and accessible local media outlets to publicize the activities. Where applicable, the public affairs staff will develop program-specific and/or community-specific publications and other strategies to inform and involve the affected communities.

As proposals arise which may have substantial environmental impacts, senior-level Center officials will hold public meetings, as appropriate, to provide information and solicit comments from the community. Such meetings will be held in the neighborhoods of affected low-income and minority groups in facilities with accessible transportation and scheduled at times when maximum attendance is possible. Centers will place documents with EJ implications in readily accessible locations such as libraries, schools, and community action/antipoverty facilities to make information available for public review. These

documents will be written in plain language with minimal technical jargon.

10. Interagency Communication - Sharing information permits building on other successes and avoiding mistakes, while effectively and efficiently using scarce resources. In certain instances, joint agency action may be appropriate for addressing EJ concerns.

## G. Integration with Ongoing Business Processes

For the NASA EJ efforts to be successful, it is imperative that EJ considerations be blended seamlessly into NASA's normal business processes. After reviewing data and information gathered by the Centers, the EJCC will spearhead an effort to review NASA regulations, management instructions, policy directives, and management handbooks to identify those rules and guidance that have EJ implications or whose modification would assist the integration of EJ into the Agency's mission. Recommendations for changes will be presented to senior NASA management. EJ considerations will be added to all appropriate policy directives as part of ongoing efforts to reengineer Agency processes.

## H. Coordination with Related Programs

NASA has a variety of initiatives focused on minority and low-income populations. Coordination of EJ efforts with these other programs will foster sharing of information, avoiding duplication of effort, and building on one another's efforts to achieve a common goal.

The NASA EJCC will designate a working group to investigate increased coordination among programs. Members of the working group will consist primarily of persons with experience in relevant NASA programs.

In developing and implementing their EJ plans, Centers may find small and disadvantaged businesses or Grants Program colleges and universities to be of considerable value.

## I. Performance Measures (Metrics/Benchmarking)

The EJCC, in consultation with the Centers, will develop metrics to measure NASA's performance in achieving integration of EJ concerns into the Agency's mission. In addition to being reliable, accurate, and meaningful, the needed information should

e readily obtainable and create minimum burden as to cost and administrative process. The metrics may include, as appropriate:

1. Existence of a Center's community involvement plan appropriately addressing EJ issues.

2. Measures capturing the actual involvement of minority populations and/or low-income populations in Center planning and review of proposals.

3. Number of existing NASA activities and programs with EJ implications; percentage of such activities and programs in which mitigation for EJ purposes has been implemented.

4. Benefits to the target populations due to NASA's EJ and other initiatives.

## J. Center Environmental Justice Plans

Each Center will develop a plan for implementing the spirit and letter of the Executive Order No. 12898 and the Presidential Memorandum on EJ within the following framework:

1. Identify existing activities and programs that may have a substantial environmental effect beyond the Center's boundaries.

2. Determine the nature, level, and geographic distribution of substantial environmental impacts caused by Center activities and programs.

3. Identify minority populations and/or low-income populations that may be adversely affected by the Center's impact on the environment.

4. Identify environmental impacts on these low-income populations and/or minority populations as a result of the Center's activities.

5. Determine which existing activities and programs have a disproportionately high and adverse human health or environmental effects on minority populations and/or low-income populations.

6. Develop prudent measures for eliminating or mitigating, to the extent practicable, the disproportionately high and adverse human health or environmental effects on such populations of existing activities.

7. While developing the measures to eliminate or mitigate existing EJ concerns, communicate the situation to the affected populations and seek their input.

8. Adapt each Center's NEPA process to ensure that, when required by NEPA, EJ concerns are addressed in each Environmental Assesment (EA) and Environmental Impact Statement (EIS), prepared for proposed new projects, programs, and activities. Where the Center determines that the proposal has no EJ implications, the basis for that finding will be presented. The Center will communicate in a timely manner with potentially affected populations.

9. Communicate identified problem areas to affected communities and develop a corrective action plan for implementation which reduces/eliminates adverse effects. Hold public information meetings with community leaders and the general public to gain stakeholder feedback as outlined in Section F, Communication, of this NASA EJ Strategy.

10. Assess the effectiveness of emergency response plans and the adequacy of resources to protect minority populations and/or low-income populations.

Certain NASA Centers have satellite facilities. Each Center involved in such an arrangement should consider whether it would be more effective and efficient to delegate to the satellite facility the responsibility for developing and implementing its own EJ plan.

## K. Mitigation and Monitoring

For existing activities and programs and new proposals that may have disproportionately high and adverse human health or environmental effects on low-income populations and/or minority populations, the Center or Headquarters Program Office, as applicable, will consider reasonable alternatives and mitigation measures that will avoid or reduce such impacts. Prudent mitigation measures will be implemented where appropriate. During consideration of the alternatives and mitigation, the potentially affected low-income populations and minority populations will be provided a reasonable opportunity to comment.

Where appropriate mitigation has been determined, methods will be instituted to ensure implementation and gauge the actual effectiveness of such measures. Among the techniques that should be considered are--

1. Specification of the mitigation in construction and other appropriate contracts.

2. Field inspection of existing activities and construction.

3. Field environmental data collection and monitoring.

4. Convenient public access to Center environmental data, especially for the potentially affected populations.

5. Opinion surveys of affected low-income and minority populations.

6. Center environmental self-assessments, with EJ as one of the focus areas.

While mitigation may ultimately be necessary, NASA's first priority will be pollution prevention. By changing processes and materials used, often environmental hazards can be eliminated or substantially reduced. Not only does pollution prevention benefit low-income populations and/or minority populations but also the American public in general. Pollution prevention is the cornerstone of NASA's environmental program.

## L. Documentation

There is a need to document EJ-related information to improve planning, ensure and demonstrate implementation, and record progress towards the Agency's EJ goals. NASA's environmental documents in which EJ may be incorporated are as follows:

1. Center Environmental Resources Document.

2. EIS's and EA's.

3. Geographic Information Systems (GIS).

4. Resource Conservation and Recovery Act and the Comprehensive Environmental Response, Compensation, and Liability Act.

Executive Order No. 12898 requires each Federal agency to report its progress in implementing its agencywide EJ strategy by February 11, 1996, to the Interagency Working Group on Environmental Justice. Federal agencies will provide additional periodic reports as requested by that working group. When the NASA EJ Coordinator is informed about the type of data to be requested, that information will be promptly communicated to the

Center EJ Coordinators.

NASA will also report on any formal environmental research projects with EJ implications that could (a) reduce or eliminate duplication of research efforts, (b) minimize research costs, (c) facilitate tracking and monitoring of dedicated resources, and (d) promote the multidisciplinary research and sharing of scientific information. All standardized NASA public reporting formats will be available to both internal and external stakeholders and will be accessible electronically.

## M. NASA Demonstration EJ Initiatives

One NASA Center has volunteered to conduct demonstration projects for situations identified which may have EJ implications. The George C. Marshall Space Flight Center (MSFC) in Huntsville, Alabama, conducts rocket motor testing, among other activities. In addition, that Center contains a Superfund site on the National Priorities List. NASA soon will enter into a Federal Facilities Agreement with the EPA concerning cleanup of the MSFC site. Management at MSFC plans an aggressive public outreach campaign to ensure that the general public is aware of (1) the status of progress in Superfund remediation activities and (2) proposed new activities, programs, and projects at the Center. One of the communities in the vicinity of MSFC that may be environmentally impacted by rocket motor testing is the town of Triana, a community likely to have a substantial number of residents covered by Executive Order No. 12898. MSFC intends to initiate an information repository concerning proposed projects and anticipated environmental impacts at the Triana Town Hall and arrange meetings with town leaders and interested citizens on rocket motor testing activities.

In addition to increasing awareness and input from minority populations and/or low-income populations, MSFC plans to leverage its environmental activities into an educational resource for students from such groups. The Center is developing a GIS which will contain a wide variety of environmental data and models for predicting potential impacts related to Center activities. As an integral part of this GIS, MSFC proposes to locate computer workstations at a number of educational institutions in neighboring localities. One site will be at the high school serving the town of Triana. Another will be located at Jackson State University, a Historically Black University. These facilities will not only provide real-time access to environmental information generated at MSFC and the status of cleanup activities but also offer a tool to develop interest and skills in environmental science and engineering. Students will be given the opportunity to analyze data and work with

environmental models. The only limitation on their use of the GIS will be an inability to alter the actual data generated by MSFC's monitoring and other environmental activities.

## N. Continuous Improvement

Flexibility and innovation are cornerstones of NASA's EJ strategy. The NASA EJCC will develop a program, in consultation with NASA Centers, to promote the timely communication of EJ information and initiatives among the Centers. One element of this program will be a mechanism for collecting and acting on suggestions for improving the EJ strategy.

Improving the process and effectively dealing with EJ concerns are best accomplished by better understanding the affected populations' concerns and perception of NASA's strategy. Each Center's EJ Implementation Plan should include methods for obtaining feedback from affected low-income and/or minority populations on the effectiveness of that strategy. Similarly, each Center's plan should contain a provision for periodic review and adjustment, as appropriate.

## O. Timetable for Implementation

To ensure that NASA addresses the concerns of Executive Order No. 12898 in a timely manner, the following milestones will be met:

March 24, 1995: Final NASA EJ strategy will be provided to the Interagency Working Group on Environmental Justice and distributed to NASA Centers.

July 24, 1995: Each Center will provide the EJCC with a copy of its Draft EJ Implementation Plan. Each Center will identify, to the maximum extent practicable, substantial environmental impacts from its activities that extend beyond the facility's boundaries.

September 24, 1995: The NASA EJCC will provide comments on the Draft EJ Implementation Plans to each Center.

October 24, 1995: Each Center will finalize and initiate actions defined in its EJ Implementation Plan.

Each Center will provide a timetable for implementation in its EJ Implentation Plan.