



**RECOMMENDED PRACTICES FOR
SITE PLANNING, DEVELOPMENT AND RESTORATION
April 26, 2012**

Overview

The Marcellus Shale Coalition (MSC) is committed to ensuring that all Marcellus Shale natural gas wells are designed, drilled and completed to high and consistent standards.

In order to extract natural gas from the Marcellus Shale and deliver it to end-users, the construction of well pads, access roads, water and gas pipelines, gas transmission lines, and gas-compression, processing and other facilities are necessary. This infrastructure is vital to obtain the economic and energy security benefits from this abundant natural resource. Such construction invariably brings a degree of disturbance to the surrounding land, and carries with it the potential to impact surrounding environments. It is in the interests of both the public and operators to minimize these impacts and to that end the MSC has developed a set of Recommended Practices, in consultation with key third party stakeholder groups.

MSC members are fully committed to engaging relevant parties – specifically landowners, who we consider key strategic partners – in the development of the clean-burning natural gas of the Marcellus Shale using procedures and technologies that will protect and preserve vital environmental resources for generations to come. Additionally, ongoing collaboration and open communication between the operator and landowner will prove vital to the long-term sustainable development of natural gas across the Marcellus region.

MSC members are committed to applying these practices in all site-development and land-restoration activities. And in all cases, these practices are intended to either minimize land disturbances or improve sites for landowners and other land-users.

These Recommended Practices are derived from the operational best practices that MSC members have recognized and through consultation with leading sportsmen and conservation groups as the most current and relevant considerations when beginning the process of well-site development. Following these practices encourages the use of state-of-the art techniques for environmental protection, the continuous improvement of site-development and land-restoration practices, and the recognition that operators must consider themselves responsible members of the communities in which they work. The implementation of these practices provides the best opportunity for sustained economic benefits reaching both operators and communities alike.

Recommended Practices address the full range of site development and restoration activities, from initial determination of needs for new facilities and associated land disturbances through site planning, surface-owner involvement, permitting, clearing and grubbing, site and facility construction, interim restoration, and final restoration.

Broken into steps, these Recommended Practices include:

- Identifying the local needs for the site;
- Formulating an unconstrained, conceptual site plan;
- Conducting a comprehensive constraints analysis;
- Refining the conceptual site plan based on constraints;
- Engaging in discussions with site owners;
- Further altering the site concept, as needed, based on the identification of site features to retain or protect;
- Preparing a final site plan that highlights retained features;
- Fully implementing E&S and other environmental controls;
- Implementing partial restoration during operation;
- Conducting final restoration in line with the plans and objectives of the surface owner;
and
- Ensuring site monitoring, maintenance and repair.

Taken together, these Recommended Practices form a repeatable process that MSC upstream exploration and production (E&P) companies and midstream gathering and gas processing companies can follow to minimize surface and environmental impacts through site planning and development.