

## APPENDIX E – MARCELLUS SHALE AND RECREATIONAL AND AESTHETIC RESOURCES IN WESTERN MARYLAND

### Marcellus Shale, State Lands and Economic Impacts of Parks

Maryland’s Western Region is rich in recreational, cultural and aesthetic resources. Garrett and Allegany Counties are home to eight State Parks; one Natural Resources Management Area (NRMA); one Natural Environment Area (NEA) – the state’s only designated wild river, four State Forests; four Wildlife Management Areas, three fish hatcheries/fish management areas, six Heritage Conservation Fund sites, one undesignated conservation area (MET), two scenic byways; miles of trails and a number of developed or developing water trails. Western Maryland has high public land visitation by both day use and overnight users. The development of a Marcellus shale gas industry in western Maryland has the potential to affect visitor’s experiences, alter the recreational and aesthetic landscape of the region, negatively affect longstanding research and resource management sites and change the economic impact of park visitation in the future.

The Maryland State Parks are an economic driver for local communities and areas around the parks (Dougherty, 2011). Of the four park regions in the State, those in the Western region experience the highest overall economic benefit both in terms of direct spending and total economic impact that considers indirect and induced effects (Figure 1, below). State Park visitors in the Western region directly spend more than \$211 million annually

Total trip spending profile by region

Visitors to Maryland State Parks in each region spend more than \$567 million dollars in Maryland during their trips to State Parks.

<u>Region visited</u>	<u>Direct Spending</u>		<u>Total Economic Impact including indirect/induced effects</u>	
	<u>in MD</u>	<u>within a 20 minute drive</u>	<u>in MD</u>	<u>within a 20 minute drive</u>
<b>Western</b>	\$211,407,422	\$152,722,509	\$239,273,592	\$169,903,045
<b>Central</b>	\$74,297,143	\$53,910,981	\$86,879,793	\$64,157,303
<b>Southern</b>	\$76,994,613	\$50,530,556	\$88,065,924	\$56,798,719
<b>Eastern</b>	\$204,743,180	\$140,054,190	\$236,445,765	\$159,830,604

Figure 1. Total trip spending profile by region (Dougherty, 2011).

during their trips. The Western region also experiences the second-highest employment impact as a result of parks by supporting 2,775 direct jobs related to park visitation.

### Open Space Experience

In the same Economic Impact Study (Dougherty, 2011), natural scenery was the most highly rated attribute of a

park visitors. The majority of activities that both of these user communities identified as activities that they participate in at parks include hiking/walking, general relaxation, swimming, picnicing/cookout, sightseeing and photography.

Maryland State Park experience for both day use and overnight

### Byways, Hiking, Water Trails, Hunting and Fishing

Maryland has a number of well-developed and nationally-recognized networks of scenic and historic byways and hiking and water trails that provide opportunities for the public

to experience nature, cultural and historical features and the outdoors through unique vistas and long-distance travel routes. The location and features that make these routes unique (*e.g.* vistas, through-trail hikes, canopy cover) should be considered during setback discussions.

In addition to vast scenic values and hiking and water-based recreation, there are also many opportunities for citizens to enjoy hunting and fishing on public lands in Western Maryland. Especially for these groups, noise and other possible environmental effects from drilling and operations can impact the quality of or ability for these activities to be conducted. If wildlife is impacted or scared off from a particular area, the potential exists for the activity to be dislocated entirely.

### **Recommended Setbacks and Considerations**

Currently, a proposed recreational setback from Marcellus shale gas infrastructure is a minimum of 300 feet with additional setback considerations for noise, visual impacts and public safety. In addition to these considerations odors, light and illumination from the same infrastructure can also affect the natural and recreational values of areas of Western Maryland.

Following discussions with Maryland Department of Natural Resource (DNR) staff related to these additional considerations, there are several factors that may influence where this minimum setback should be increased, in some cases significantly. For instance, additional consideration and thought should be given for whether this setback should be altered based on the following:

- whether the facilities at sites are concentrated or more spread out;
- locations of high-use where visitors, managers and community members identify as most heavily trafficked or utilized;
- the presence or absence of natural buffers that could buffer sound, light and odors, especially at night, and near campgrounds;
- areas where reduced-light recreation activities occur;
- areas where particular trails are most frequently identified as providing a peaceful experience and that may be most affected by shale gas operations noise;
- lands or aquatic areas where natural resources may be degraded to a point that park visitation for the purpose of enjoying those resources would no longer be attractive;
- hunting areas that could be affected by access or operations noise and/or locations where proximity to shale gas infrastructure would increase risk to site operators/operations;
- whether unique designations are in place (*e.g.* Wild and Scenic Rivers) that define an experience in a particular location or influence funding; and
- instances where public safety risks on or around state lands would be most likely to be increased on roads, day use or overnight accommodation areas or in surrounding areas as a result of close proximity of infrastructure and people.

To more thoroughly evaluate each of these and identify particular areas that may most need additional setback consideration, work could be conducted with facility managers, friends groups or small groups of frequent visitors to compile existing data and develop new maps of use areas. In addition, some of these considerations could be considered on a case-by-case basis during the siting process to determine their applicability and evaluate what recreational or aesthetic uses that might be affected in a given area.

### **Night Skies**

In Pennsylvania, where the Marcellus shale gas industry is much more developed, efforts are underway to document the relationship between lighting on these industrial sites and changes in the darkness of night skies. Particularly, a group is working at Cherry Springs Park in Potter County to document the proximity of the lights and potential impacts on dark skies. In areas where there are dark night skies in western region state lands and where reduced-light recreation activities occur, work should focus on how to keep those night skies as dark as possible. Information and lessons learned can also be gleaned from efforts such as the one that is ongoing in Cherry Springs.

### **Outreach & Community Engagement**

Over the past five years or more, property owners and communities in western region counties have become increasingly familiar with the development of the Marcellus shale gas energy industry. In some cases, property owners have entered into lease agreements with development companies for gas extraction. Since Maryland established its Marcellus Shale Advisory Commission the public has had a periodic forum to learn what the state is doing to plan for industry development; evaluate potential community, economic, infrastructure, and natural resource impacts; and, set up a regulatory framework to ensure safe and efficient development of the industry in Maryland.

State agencies and other partners have developed a number of resources to help citizens better understand Marcellus shale gas site development. With the recent completion of UMCES' report, there is now an opportunity to reach out to Marylanders and inform them about the state of the industry, plans for safe development of shale gas and provide opportunities for citizens to submit feedback and learn about work to date.

The Maryland Department of Natural Resources has extensive experience in public engagement on a variety of issues and can recommend forum structures, information format and organizational approaches for such events. As noted in previous sections, participatory mapping workshops could also be conducted to identify particular areas where recreational and aesthetic impacts would most likely intersect with the expansion of the shale gas industry.