ATTITUDES AND AWARENESS OF AQUATIC NUTRIENT ENRICHMENT:
Overcoming Obstacles to Improved Environmental Management

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<table>
<thead>
<tr>
<th>Location</th>
<th>% Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Farm/Ranch</td>
<td>18%</td>
</tr>
<tr>
<td>Rural (not farm/ranch)</td>
<td>47%</td>
</tr>
<tr>
<td>Town &lt; 2.5k</td>
<td>49%</td>
</tr>
<tr>
<td>Town 2.5-10k</td>
<td>71%</td>
</tr>
<tr>
<td>City 10-50k</td>
<td>56%</td>
</tr>
<tr>
<td>City 50-100k</td>
<td>68%</td>
</tr>
<tr>
<td>City &gt;100k</td>
<td>62%</td>
</tr>
</tbody>
</table>
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“Do you believe excess use of N and P are causing environmental problems?”
Stakeholders - Relative Sample Sizes

- Officials: 29%
- Conservationists: 4%
- Farmers: 8%
- Industry Representatives: 10%
- Environmental Advocates: 3%
- Agriculture Consultants: 21%
- Scientists: 21%
- Regulators: 4%

Stakeholders differed from public:

More knowledge
- Have heard about the Dead Zone/Hypoxia

Less action
- Lawsuits not needed to minimize nutrients
- Those responsible should not pay for mitigation
**F2 – Axis of Immediate Concerns**
- NOT heard about Gulf hypoxia
- NOT heard about the Dead Zone
- Relax env. standards for economy
- Municipalities cannot afford costs

**F1 – Axis of Environmental Enforcement**
- Problems warrant nutrient reduction
- Effects are NOT exaggerated
- Those responsible should pay
- N & P cause env. problems.
- Federal agencies are important
- Regulations are necessary
Have you heard of... 

Dead Zone

Gulf Hypoxia
Do you believe excess N and P are causing environmental problems?
Major Source of N/P

- Agricultural Fertilizer
- Manure/Litter
- Wastewater

![Bar chart showing the percentage of each source for different groups of people.](chart_image)
Importance of Federal Government

- Very Important
- Important
- Unimportant
Stakeholders and public believed:
- People would change their behavior if they understood environmental consequences

Stakeholders generally believed:
- Voluntary measures are effective
- Outreach and education can change behavior
- Farmers are very important
  - Six of the nine stakeholder groups named FARMERS as MOST IMPORTANT for keeping "excess" N and P out of MS waters
Promoting Stewardship

MISSISSIPPI STATE UNIVERSITY

REACH
RESEARCH & EDUCATION TO ADVANCE CONSERVATION & HABITAT

- Statewide collective
- Gets farmers into ongoing research
- Access to data
  - e.g., Real-time hydrographs
The Next Steps

- Existing Programs
  - Testing effectiveness
  - Social media

- Spokesperson
- Other Stakeholders
- Keep them on the farm
The Next Generation of Stakeholders