OTHER APPROACHES TO MANAGING POLLUTANT SOURCES

Laws, Land Use, and Laypersons' Participation

[Chapter 10]
Rules of Thumb

Rule 1
One management measure alone rarely achieves the desired result.

Rule 2
Both structural and non-structural measures are frequently required to achieve the desired result.
Political and Jurisdictional Hierarchy

Political

Federal

State

County

Town, City, & Village

Jurisdiction

Clean Water Act

NR 102, NR 104

County Ordinances

Local Ordinances

Waterbody
Legal Approaches

- General Zoning
  - "Design with Nature"
  - Regulate development to avoid pollution impacts
  - Locate new development appropriately within the landscape
Legal Approaches

- **Floodland Zoning**
  - Promote development outside of the floodplain
  - Eliminate development in the floodway
  - Ensure adequate separation between development and forecast water surface elevations in the flood fringe; minimize development to the extent possible
Legal Approaches

- **Shoreland Zoning**
  - Encourage development such that an appropriate degree of separation exists between structures and the shoreline; adopt shoreline setbacks
    - Provides space for installation of shoreland buffer strips
    - Ensure continuity of shoreland habitat for amphibians and other wildlife
Legal Approaches

- **Wetland Zoning**
  - Minimize intrusion of development into wetlands
  - Limit wetland fill
    - Ensure continuity of wetland habitat for wildlife and birds
    - Reduces flood risk and risk of foundation failures
  - Incorporate wetlands and shoreland woodlands into "Environmental Corridors"
Legal Approaches

■ Subdivision Regulation
  ■ Provide for minimum lot sizes; front-, side- and rear-year setbacks; minimum site services [water and sewerage requirements]; impervious surface coverages; and, related standards for larger-scale development

■ Can incorporate "Public Open Space" requirements

■ Often require provision of access roads, stormwater practices, etc. as a requirement for sale of properties
Legal Approaches

- **Sanitation Regulation**
  - May include both solid and liquid waste management requirements
  - Include minimum separations between wells and conventional/alternative onsite sewage treatment systems
  - Supplement public sanitary sewerage systems primarily in rural areas
Legal Approaches

- Construction Site Erosion Control Regulation
  - Seek to minimize area of disturbed lands from which sediments can be transported
  - Encourage mulching, seeding, use of filter fabrics or hay bales, protection of storm sewers, use of tracking pads
  - May include staged or phased development requirements to limit the area of open lands
Legal Approaches

- **Stormwater Regulation**
  - Seek to minimize runoff from urban lands by retention of water onsite
    - May regulate sediment loads as well as water loads from sites
  - Can be applied per property, subdivision, or municipal jurisdiction
    - Typically involves structural practices such as detention/retention/infiltration ponds
    - May include "rain gardens", downspout disconnection, and "green infrastructure"
Land Use Management

- **Role of land use planning**
  - Based on inventory of current land uses
  - Encourages community-based consideration of future growth patterns
  - Ensures community development in an orderly manner, compatible with the ability to provide public services
  - Promotes orderly transitions between land uses
Land Use Management

- **Land Use Inventory**
  - Establishes a base from which to plan and evaluate future growth
  - Identifies existing land uses; complements plat maps that document land ownership
  - Land use maps may highlight areas with potentially incompatible land uses
Land Use Management

- Urban land uses include:
  - Residential
  - Commercial
  - Industrial
  - Governmental
  - Institutional
  - Transportation and Utilities
  - Recreational

- Rural land uses include:
  - Agricultural
  - Wetlands
  - Woodlands
  - Water Resources
  - Land fills or extractive uses
  - Other open lands
Land Use Management

- **Land Use Plans**
  - Place future growth projections in the context of existing development
  - Allow assessment of public service needs
  - Promotes development and supports development policies that limit negative environmental impacts
Land Use Management

- Plans should contribute to:
  - Consensus
  - Communications
  - Contracting
  - Coordinating and controlling activities
  - Conserving resources

- Plans should avoid:
  - Chaos
  - Cost excesses
  - Being "Cast in Concrete"
Land Use Management

- Land Use and Watershed Protection Plans
  - Serve complementary objectives
  - Allow assessment of the relationship between the human or built environment and the natural environment
  - Promotes understanding of good environmental stewardship that ultimately contributes to "quality of life" and "healthy communities"
Land Use Management

- Drainage Basin/Watershed
- Floodplain
- Reach
- Habitat
- Microhabitat

- Slow
- Fast

- Low Recovery Time
- High Recovery Time

- Low Sensitivity
- High Sensitivity

- Large Size
- Small Size

Large-----------------------------Size-----------------------------Small
Laypersons' Participation

- Public (or Stakeholder) involvement and participation is essential for:
  - Developing effective laws, and
  - Implementing practicable plans
Laypersons' Participation

- Public vs Stakeholders

  - "Public" comment typically is based on residency with specific jurisdictions

  - "Stakeholders" include anyone (including corporations and other legal persons) having an interest in the issues under discussion
Laypersons' Participation

- Involvement vs Participation

  - "Involvement" can simply mean the conduct of an informational meeting or conduct of a regulatory public hearing

  - "Participation" invokes not only consultation but an active role in formulating policies, plans, and practices
Laypersons' Participation

- Informational Programming
  - Easy to implement
  - Frequently entail synergies with ongoing programs being conducted by public health and sanitation departments
    - Examples: anti-littering campaigns, recycling, mosquito prevention programs
  - Can build on existing initiatives
    - Example: University Extension programs
Laypersons' Participation

- **Educational Programming**
  - Classroom-based initiatives
  - Can entail synergies with traditional curricula
    - Examples: inclusion of watershed studies within environmental studies curricula, inclusion of environment in arts and sciences curricula
  - May be more difficult to initiate and integrate, depending on school-year, school-administration, and cost considerations
Laypersons' Participation

- **Combining Educational and Informational Efforts**
  - Citizen volunteer monitoring programs for lakes and streams
  - Can encourage inter-generational contact and enhance community cohesion

- Examples include: "pontoon classrooms", "send your legislator down the river", and "demonstration projects"

- Build synergies with existing programs, such as recycling, anti-littering, and public health programs
Laypersons' Participation

- Determining appropriate levels of participation
  - Informational and Educational (I&E) efforts are best suited to creating and maintaining a general level of awareness
  - Public Participation efforts contribute to a greater sense of "ownership" in a community
  - Stakeholder Participation places greater demands on public officials, may be more time-consuming, but generally leads to a "better"/"sustainable" result
Laypersons' Participation

Individual participation

vs

Community-based participation
Laypersons' Participation

- As Individuals, We Can:
  - Communicate with elected officials
  - Manage our own lake or stream-front property
  - Talk with our neighbors
Laypersons' Participation

As A Group, We Can:

- Communicate with elected officials
- Manage our own lake or stream-front property
- Talk with our neighbors
- Raise funds
- Partner with others and seek assistance from agencies and organizations
- Undertake community projects
- Share information and expenses
- And so much more!
Laypersons' Participation

- Types of Organizations
  - Governmental Organizations
    - Special Assessment Districts
  - Unincorporated Lake and Stream Associations
  - Incorporated Lake and Stream Associations
Laypersons' Participation

- Operating a Lake and Stream Association
  - Develop a Vision
    - DO consider using a facilitator to define your vision
    - DO consider developing a lake plan
  - DO NOT assume that everyone shares the same opinions
  - DO NOT assume that once you have defined your vision that it will remain constant over time
Laypersons' Participation

Formulating a Plan

- Set goals – develop consensus
- Collect information – understand current conditions
- Analyze information
- Develop alternatives
- Formulate recommendations
- Adopt the plan and schedule activities for its implementation
- Monitor results and modify the plan
Laypersons' Participation

- Executing the Plan
  - Gather Information
    - Participate in the citizen monitoring program
  - Share Information
    - Publish a newsletter
    - Convene informational meetings
    - Have regular meetings
    - Hold meetings at convenient times and in accessible locations
Laypersons' Participation

- Your Organization IS a Business
- Develop a Business Plan
  - Sources of funding: dues, grants, donations
    - Create a bank account
  - Keep good records: minutes, finances
    - Determine your fiscal year
    - Create and adopt a written budget
    - Conduct an annual/periodic audit
  - Hold an annual meeting
  - Secure your records: public libraries may offer a lake and stream section
Laypersons' Participation

- Use *Roberts’ Rules of Order*
- Have a Written Agenda, Provide it to Members/Directors *in Advance of the Meeting*
- Include a Financial Report
- Keep Good Records of Decisions and Outstanding Issues
- Follow Up, Assume Nothing!
Laypersons' Participation

- Connecting With Your Members
  - Develop a newsletter, publish it regularly
  - Consider a website
  - Create a logo or other identifiable design or slogan
  - Include interesting programming at your annual meeting

- Connecting With Others
  - Consider joining the North American Lake Management Society (NALMS)
  - Consider forming a county-wide or regional group
Finding a rhythm

- A Smoothly-Functioning and Efficient Lake and Stream Organization Engenders Trust

- Trust Enables Good Working Relationships

- Good Working Relationships Lead to Successful Projects

- Successful Projects Contribute to a Healthy Lake or Stream