

Oregon Statewide Planning Goal 5 Economic, Social, Environmental, and Energy (ESEE) Analysis Template

Background

The regulatory framework for local natural resource protection falls primarily within the purview of Statewide Planning Goals 5 and 6. Goal 5 mandates that local governments “adopt programs that will protect natural resources and conserve scenic, historic, and open space resources for present and future generations.” Goal 5 offers local governments a choice of two methodologies to achieve Goal requirements: the “standard” or “safe harbor” approach. A local jurisdiction must either carefully justify its decision to protect or not protect a resource through a Goal 5 standard approach with an Economic, Social, Environmental, and Energy (ESEE) analysis, or follow an inventory process and protection strategy described in the Goal 5 safe harbor method. Where the safe harbor is pursued, no ESEE analysis is required. An ESEE analysis reviews the economic, social, environmental and energy consequences of not allowing, partially allowing or fully allowing conflicting uses. Based on the ESEE Analysis, under Statewide Planning Goal 5, jurisdictions are required to adopt a program to protect their significant wetlands as identified in the local wetland inventory (LWI). This *ESEE Analysis template* form can be used to conduct an ESEE analysis for some or all locally significant wetland sites contained in a local wetland inventory (LWI)

ESEE Analysis under Goal 5

The Goal 5 administrative rule (OAR 660-023) requires that local governments:

1. Identify an Impact Area for each site(s);
2. Identify land uses and activities that conflict (i.e., could adversely impact) with the resource site and its impact area;
3. Consider the economic, social, environmental and energy consequences of the following **three program options**:
 - a. Prohibit conflicting uses providing full protection of the resource site.
 - b. Limit conflicting uses offering limited protection of the resource site (balance development and conservation objectives) (*developed by the jurisdiction*)
 - c. Allow conflicting uses fully with no local protection for the resource site
4. Based on the ESEE analysis, adopt a local protection program to protect some or all significant Goal 5 resources.

ESEE Approaches

There are a number of acceptable approaches for an ESEE analysis. An analysis may:

- *Address each of the identified conflicting uses individually, or*
- *Address a group of similar conflicting uses.*
- *Conduct a single analysis for two or more resource sites that are within the same area or that are similarly situated and subject to the same zoning.*
- *Establish a matrix of commonly occurring conflicting uses and apply the matrix to particular resource sites in order to facilitate the analysis.*
- *Conduct a single analysis for a site containing more than one significant Goal 5 resource.*

(OAR 660-023-0040(4))

Oregon Administrative Rules ~~660-023-0040(1)~~ ~~that the ESEE analysis need not be lengthy or complex, but should enable reviewers to gain a clear understanding of the conflicts and the consequences to be expected.~~ (OAR 660-023-0040(1))

SITE(S)	Acres	OFWAM
(Site Code)	X.X	Water Quality:
X-X	X.X	Hydrologic Control:
X-X	X.X	Wildlife Habitat:
TOTAL	X.X	Other (see OFWAM summary tables in LWI Report)

Group (vs. Individual) Analysis:
 If a group of sites are similar enough in their geography and/or situation and/or zoning and/or OFWAM scoring they can be analyzed collectively. If, in the process of analysis **Conflicting Uses** Use Attachment B, "Conflicting Uses" to select typical conflicting uses for the applicable zone(s). Customize results narrative for your community.

Site and Impact Area

The *ESEE Analysis Template* guides local staff and officials through the ESEE analysis basics. There are three pages of forms to be filled out. **Highlighted text** is included as instruction and should be replaced or customized with local site/group specific data. Attachment E is an example of one fully completed ESEE template. Site specific answers are in *italics*.

(Resource Map)

One way to add a resource map is to clip an image of the site from your LWI map and place it here

ESEE Template Attachments:

- Attachment A: Important ESEE Analysis Terms
- Attachment B: Sample Conflicting Uses by Zone and General Conflicting Uses
- Attachment C: Site Specific ESEE Scoring Exercise
- Attachment D: Example Analysis Summary Matrices.
- Attachment E: Completed Example ESEE Analysis Template

Site Description:

Describe the site(s) narratively. Describe the location noting any nearby landmarks or other points of reference. Briefly describe the current use of the site and the surroundings. Note the sites relationship to other resources (if applicable), and any relevant site history (if known). Wetland Summary sheets (appendix to the LWI reports) have detailed site information that can be useful for this section.

Table 1: Resource and Impact Area Summary

Resource Area (Site(s) Acreage):	X.X
Impact Area Acreage:	X.X

Combined Resource and Impact Area:	X.X
Number of Parcels Affected:	X

Existing Local Protections

Is the site protected by minimum development setbacks, or development restrictions described in existing city code? Describe these protections. In rare instances existing protections may be sufficient to cover safe harbor protections, or to cover alternative methods of protection (i.e. under Goal 6). Just note, "There are no current local protections in place" if there aren't any local protections for wetlands in place.

Site Specific ESEE Analysis

This section discusses ESEE impacts of the conflicting uses that are specific to Site X or the group of sites including X, X, X. City of X staff and officials have assessed each site or group of sites and provided a written evaluation of the Economic, Social, Environmental and Energy consequences of allowing, limiting or prohibiting conflicting uses on wetlands. This paragraph should include a brief discussion of what the City has in mind under the "limit conflicting uses" option (these can be catered to the site, or more general in nature). Attachment C is an exercise to help outline the discussion for this site specific narrative for each ESEE category.

Economic Consequences

Narrative discussion of the economic consequences (increased infrastructure costs, impacts to property owners, etc.) if the following protection scenarios are pursued:

- Prohibit Conflicting Uses (full protection) ...
- Limit Conflicting Uses (limited protection) ...
- Allow Conflicting Uses (no protection) ...

Social Consequences

Narrative discussion of the social consequences (education, recreation, aesthetics, etc.) if the following protection scenarios are pursued:

- Prohibit Conflicting Uses (full protection) ...
- Limit Conflicting Uses (limited protection) ...
- Allow Conflicting Uses (no protection) ...

Environmental Consequences

Narrative discussion of the consequences to water quality, hydrologic control, wildlife and fish habitat (as well as other relevant factors) if the following protection scenarios are pursued:

- Prohibit Conflicting Uses (full protection) ...
- Limit Conflicting Uses (limited protection) ...
- Allow Conflicting Uses (no protection) ...

Energy Consequences

Narrative discussion of the energy consequences (transportation connectivity, efficient urban development, etc.) if the following protection scenarios are pursued:

- Prohibit Conflicting Uses (full protection) ...
- Limit Conflicting Uses (limited protection) ...
- Allow Conflicting Uses (no protection) ...

Conclusions/Recommendation

What program will be instituted, AND WHY? This is where you should discuss and weigh the relative consequences of alternatives and present the city's case for its final recommendation.

Reduction in the Buildable Land Inventory:

Describe whether any acreage in the resource site or group of sites was/were counted in any existing inventory of buildable lands and whether the recommended program for protection would increase/reduce the inventory (and by how much).

Acres to Remove From Buildable Lands Inventory: _____
(Distinguish by Zone if necessary)

Attachment A: Important ESEE Analysis Terms

Conflicting Uses: A land use, or other activity reasonably and customarily subject to land use regulations, that could adversely affect a significant Goal 5 resource (except as provided in OAR 660-023-0180(1)(b)). Local governments are not required to regard agricultural practices as conflicting uses.

The Goal 5 rule explains how conflicting uses generally are determined (OAR 660-023-040)(2): *Identify conflicting uses. Local governments shall identify conflicting uses that exist, or could occur, with regard to significant Goal 5 resource sites. To identify these uses, local governments **shall examine land uses allowed outright or conditionally within the zones applied to the resource site and in its impact area.*** (emphasis added)

ESEE consequence: The positive and negative economic, social, environmental, and energy (ESEE) consequences that could result from a decision to allow, limit, or prohibit a conflicting use.

Goal 5 Safe Harbor: A "safe harbor" consists of an optional course of action that satisfies certain requirements under the standard process. Local governments may follow safe harbor requirements rather than addressing certain requirements in the standard Goal 5 process. For example, a jurisdiction may adopt a wetlands ordinance that protects significant wetlands (per OAR 660-023-0100(4)(b)) in lieu of following the ESEE decision process in OAR 660-023-0040.

Impact Area: A geographic area within which conflicting uses could adversely affect a significant Goal 5 resource. (OAR 660-023-010): (3) ... *local governments shall determine an impact area for each significant resource site. The impact area shall be drawn to include only the area in which allowed uses could adversely affect the identified resource. The impact area defines the geographic limits within which to conduct an ESEE analysis for the identified significant resource site.*

Protection: (OAR 660-023-010): (7) *"Protect," when applied to an individual resource site, means to limit or prohibit uses that conflict with a significant resource site. * * *. When applied to a resource category, "protect" means to develop a program consistent with this division.*

Program: (OAR 660-023-010)(6) *"Program" or "program to achieve the goal" is a plan or course of proceedings and action either to prohibit, limit, or allow uses that conflict with significant Goal 5 resources, adopted as part of the comprehensive plan and land use regulations (e.g., zoning standards, easements, cluster developments, preferential assessments, or acquisition of land or development rights).*

Attachment B: Sample Conflicting Uses by Zone and General Conflicting Uses
(to be used to paste into the “Conflicting Uses” section of the Template.)

Residential Zone(s)

Residential development is allowed as standard partitions, subdivisions and PUDs. Development may include vegetation removal, grading, excavation, fill, trenching, installation of infrastructure, and construction of streets, utilities, and homes

Commercial/Industrial Zones

Development standards allow replacement of existing vegetation with a high percentage of impervious surfaces including buildings and pavement. Allow streets and public facilities/utilities necessary to serve development.

Parks and Open Space Zone

Vegetation removal and grading are allowed during the construction process. Limited range of conditional uses allows vegetation removal, excavation, utilities and construction of impervious surfaces, including streets.

Public Infrastructure Uses

If you are addressing conflicting uses related to public infrastructure, develop narrative that describes how conflicting public infrastructure uses allowed by applicable base zones apply to specific wetlands. For example, the City of X has plans (adopted or otherwise) for sanitary sewer, public water, and stormwater management (public or private). These facilities will conflict directly with full natural resource protection of Wetland X because there is no reasonable alternative to routing these facilities through the mapped wetland boundary to serve nearby buildable land). List any planned transportation, utility and park projects that necessitate “conflicting use” (trenching, excavating, grading, etc.) These conflicts have negative economic consequences (and likely social and energy consequences). The following language will be a helpful start to your narrative:

The development code permits basic utilities and street development in most zoning districts. Basic utilities often include “water and sewer systems (referring to sanitary and storm sewer), telephone exchanges, power substations and transit. Such public and private facility uses potentially conflict with environmental values. Construction of public facilities and services usually requires vegetation removal and grading and often results in construction of impervious surface area.”

Institutional Uses

Schools, hospitals, churches, and parks are allowed in residential and commercial zones. These generally require large sites and can avoid impact to resources.

Attachment C: Site specific ESEE Scoring Exercise

Attachment C is an exercise which will help outline the discussion for this site specific narrative for each ESEE category. It can be part of the ESEE Analysis submission or used only as an internal tool for facilitating consideration of ESEE consequences.

Scoring Criteria		Criteria Scores on a Scale of 1 to 5		
		Prohibit Conflicting Uses	Limit Conflicting Uses	Allow Conflicting Uses
SITE: X-X				
Economic				
Efficient urban development				
Cost of installation/maintenance of public infrastructure (roads, stormwater, utilities)				
Development potential for property owners				
Amount of employment land				
Amount of residential land				
Housing development costs				
Employment development costs				
Other				
<i>Economic Subtotal</i>				
Social				
Aesthetic Value				
Recreational Value				
Contribution to local quality of life				
Housing Costs				
Social Equality				
Other				
<i>Social Subtotal</i>				
Environmental				
Water quality: Filtration and removal of pollutants				
Hydrologic control: Water collection and storage				
Wildlife habitat				
Fish Habitat				
Other				
<i>Environmental Subtotal</i>				
Energy				
Transportation Connectivity				
Efficient Urban development				
Shading and cooling				
Other				
<i>Energy Subtotal</i>				
Average Overall Rating				

Attachment D: Example Analysis Summary Matrices. (A tool for use if the number and complexity of ESEE analysis sites or groups of sites lends itself to further summarization. This can be useful in materials for public officials or the public)).

ESEE Factor Focused Matrix:

Program/ Resource Site	Economic Consequences	Social Consequences	Environmental Consequences	Energy Consequences
Full Protection				
SITE WET-X (Example)	<i>Significant loss of employment land</i>	<i>Potential to add aesthetic and recreational value added</i>	<i>Water Quality preservation TMDL program compliance Significant habitat preservation</i>	<i>None of note</i>
SITE WET-Y	...			
...	...			
and/or GROUP A	...			
GROUP B	...			
Limited Protection				
SITE WET-X (Example)...	<i>Moderate loss of employment Land</i>	<i>Preserve aesthetic and recreational value</i>	<i>Water quality function reduced TMDL program compliance Some habitat preservation</i>	<i>None of note</i>
and/or GROUP A	...			
...				
No Local Protection				
SITE WET-X (Example)...	<i>Very little loss of employment land</i>	<i>Loss of aesthetic and recreational value</i>	<i>Loss of water quality function TMDL compliance not met Loss of significant habitat</i>	<i>Slight benefit to compact urban growth</i>
and/or GROUP A	...			

Protection Program focused on water

Program / Resource Site	Full Protection	Limited Protection	No Local Protection
Economic Consequences			
SITE WET-X (Example)	<i>Significant loss of employment land</i>	<i>Moderate loss of employment Land</i>	<i>Very little loss of employment land</i>
SITE WET-Y	...		
...			
and/or GROUP A	...		
Social Consequences			
SITE WET-X (Example) ...	<i>Potential to add aesthetic and recreational value added</i>	<i>Preserve aesthetic and recreational value</i>	<i>Loss of aesthetic and recreational value</i>
and/or GROUP A	...		
Environmental Consequences			
SITE WET-X (Example) ...	<i>Water Quality preservation TMDL program compliance Significant habitat preservation</i>	<i>Water quality function reduced TMDL program compliance Some habitat preservation</i>	<i>Loss of water quality function TMDL compliance not met Loss of significant habitat</i>
and/or GROUP A	...		
Energy Consequences			
SITE WET-X (Example) ...	<i>None of note</i>	<i>None of note</i>	<i>Slight benefit to compact urban growth</i>
and/or GROUP A	...		

Site Description:

Attachment E: Completed Example ESEE ANALYSIS TEMPLATE

SITE (S)		Acres	OFWAM:
SV-4		1.4	<u>Water Quality:</u> Medium for both <u>Hydrologic Control:</u> High for both <u>Wildlife Habitat:</u> Low SV-5 and Medium for SV-4 <u>Fish Habitat:</u> Low for both
SV-5		3.4	
TOTAL		4.8	
Zone		R-1	

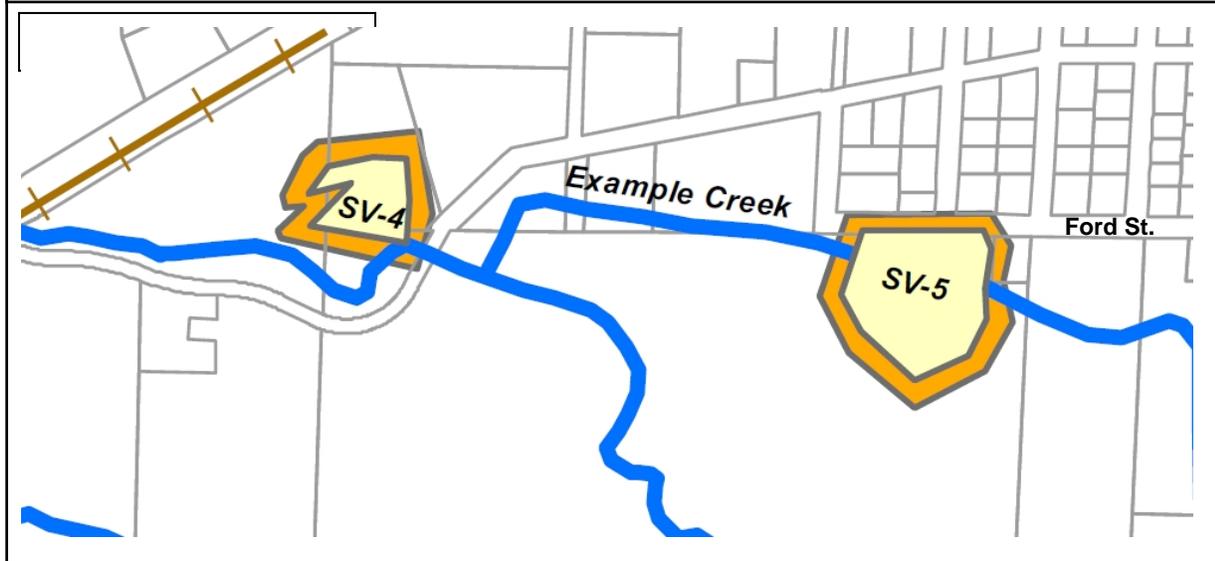
Associated Riparian Areas: SV-4 and SV-5 are both associated with Example Creek

Conflicting Uses:

Residential Zone (R-1): Residential development is allowed as standard partitions, subdivisions and PUDs. Development may include vegetation removal, grading, excavation, fill, trenching, installation of infrastructure, and construction of streets, utilities, and homes

Public Infrastructure Plans:

Sampleville's Transportation System Plan identifies Ford St. as a future local collector. Construction of public facilities and services usually requires vegetation removal and grading and often results in construction of impervious surface area.



Sites SV-4 and SV-5 is part of a riparian and wetland area near and/or adjacent to Highway 1, in the southern portion of Sampleville. These wetlands are on vacant residentially zoned land and generally surrounded by residential uses, and a highway and railroad.

Table 1: Resource and Impact Area Summary

Resource Area:	4.8
Impact Area Acreage:	3.0
Combined Resource and Impact Area:	7.8
Number of Parcels Affected:	7

Existing Local Protections

There are no current local protections in place.

ESEE Analysis

This section details the three alternatives and discusses the Economic, Social, Environmental and Energy (ESEE) impacts to the group of sites including SV-4 and SV-5. City of *Sampleville* staff and officials have assessed the sites and provided a written evaluation of the ESEE consequences of allowing, limiting or prohibiting conflicting uses on these wetlands. In *Sampleville*, conflicting uses that will be “limited” for wetlands SV-4 and SV-5 under this analysis include street and utility construction necessary for efficient development and driveway construction to otherwise inaccessible portions of taxlots. These uses will be conditional and will be subject to conditional use review and approval provisions under Section X of the *Sampleville* Development Code.

Economic Consequences

Following is a narrative discussion of the economic consequences (increased infrastructure costs, impacts to property owners, etc.) if the following protection scenarios are pursued:

Prohibit Conflicting Uses (full protection)

The economic consequences of prohibiting conflicting uses would be adverse, because the acreage occupied by wetlands could not be used to allow for urban development or for extension of infrastructure and full utilization of underdeveloped properties. SV-5 is positioned at the termination of several rights-of-way. Extension of existing streets is most logical/efficient and affordable along these rights-of-way. Prohibiting conflicting uses on SV-4 landlocks the only portion of the lot that is not within the wetland. Prohibiting conflicting uses would have at least one significant positive economic consequence: providing substantial stormwater management benefits and eliminating the need for the construction of expensive new facilities

Limit Conflicting Uses (limited protection)

*The economic consequences of limiting conflicting uses are mixed but generally positive. Some residential land (a scarce resource in *Sampleville*) will not be developable, but certain acreage will remain accessible by limiting conflicting uses. The stormwater runoff control functions of SV-4 and SV-5 will not be affected significantly through limited conflicting use, which has positive economic consequences.*

Allow Conflicting Uses (no local protection)

Allowing all conflicting uses and relying on the State’s fill and removal law would, in most cases, have positive consequences. DSL regulations allow some flexibility to allow conflicting urban uses where no reasonable alternative exists; and DSL

regulations allow road and utility extensions where necessary to serve urban development. Negative economic consequences include the possible necessity to construct expensive stormwater infrastructure to manage increased runoff with decreased natural control mechanisms.

Social Consequences

Following is a narrative discussion of the social consequences (education, recreation, aesthetics, etc.) if the following protection scenarios are pursued:

Prohibit Conflicting Uses (full protection)

The social consequences of prohibiting conflicting uses are mixed. SV-4 and SV-5 provide a contribution to urban aesthetics and provide a connection to nature (which also has the potential to increase through protection). Prohibiting conflicting uses could, however, greatly limit development efficiency (thereby increasing housing costs and decreasing housing opportunities), with corresponding adverse social impacts including reduced housing equality, reduced quality of life, and potential increased reliance on social safety nets.

Limit Conflicting Uses (limited protection)

The social consequences of partially allowing conflicting uses are generally positive. Urban aesthetics and connection to nature are not eliminated by allowing the identified conflicting uses, and the provision of greater development opportunity goes far to mitigate the negative social consequences of the remaining protected portions of SV-4 and SV-5.

Allow Conflicting Uses (no local protection)

The social consequences of allowing all conflicting uses in SV-4 and SV-5 are mixed. DSL permitting is not sufficient to ensure the protection of wetland values that may be lost to development which is of negative social consequence. Allowing all conflicting uses would likely result in more efficient use of residential and public land – which has positive social consequences (e.g. increased housing equality).

Environmental Consequences

Wetlands provide a wide array of environmental benefits. They protect and preserve drinking water supplies because they purify surface water and ground water. They also reduce soil erosion because the vegetation holds the soil in place. Following is a narrative discussion of the consequences to water quality, hydrologic control, wildlife and fish habitat (as well as other relevant factors) if the following protection scenarios are pursued for SV-4 and SV-5:

Prohibit Conflicting Uses (full protection)

Wetlands SV-4 and SV-5 provide medium and high level hydrologic (flood) control, and water quality. These wetlands help to protect life and property during floods by storing and absorbing water, a necessity exemplified by significant storms in recent years. Wetland preservation is included as a water quality improvement strategy in the City's TMDL Implementation Plan. Prohibiting conflicting uses will go far to keep both flood control and water quality functions intact. SV-4 and SV-5 have only limited fish and wildlife habitat value, still prohibiting conflicting uses is viewed as having positive,

if limited environmental consequence. The environmental consequences of prohibiting conflicting uses are positive.

Limit Conflicting Uses (limited protection)

The environmental consequences of limiting conflicting uses are mixed. The impacts to SV-4 and SV-5 that would result from limiting conflicting uses would include reducing their capacity to serve flood control, water quality and fish and wildlife habitat functions, which are negative environmental consequences. Positive consequences of this alternative are the relative preservation and maintenance of the wetlands and their functions (beyond the limited impacts).

Allow Conflicting Uses (no local protection)

Wetlands SV-4 and SV-5 will always be under the jurisdiction of DSL administrative rules, which regulate the removal and fill of wetlands. However allowing conflicting uses and relying solely upon DSL for wetland “protections” has negative environmental consequences. DSL provisions do not directly address wetland functions and therefore critical wetland functions (hydrologic control, water quality, and habitat) may be lost. Additionally, created wetlands (as often required through DSL permitting) may not provide the same ecological function as naturally occurring wetlands, or provide that function in the locality where it is deemed “significant.” This scenario has negative environmental consequences.

Energy Consequences

Following is a narrative discussion of the energy consequences (transportation connectivity, efficient urban development, etc.) if the following protection scenarios are pursued:

Prohibit Conflicting Uses (full protection)

The energy consequences of prohibiting conflicting uses would be mixed but largely negative. Where trees are present, preservation of SV-4 and SV-5 can provide summer shade, source of natural cooling. This option, however, prevents efficient street connectivity and can result in a less compact urban growth form, which has adverse energy consequences (e.g. increased vehicle miles traveled)

Limit Conflicting Uses (limited protection)

The energy consequences of limiting conflicting uses would be positive. In cases where the existing surface drainage system does not impede transportation connectivity or efficient urban development, there would be no reason to replace relatively “green” drainages with less energy-efficient “gray” conduit systems. What shading and cooling potential SV-4 and SV-5 have will be largely preserved. Limiting conflicting uses results in better street connectivity, and reduced energy consumption.

Allow Conflicting Uses (no local protection)

The energy consequences of allowing all conflicting uses and relying on state regulations are also mixed but generally positive. Replacing natural drainage with pipes may result in more efficient use of scarce urban land. In such cases,

constructing underground pipes to drain farmed wetlands or to replace surface drainage ditches consumes relatively little energy. Allowing all conflicting uses allows for a more compact urban growth form, which has positive energy consequences.

Conclusions/Recommendation

The relative consequences of each option must be weighed and balanced to determine a preferred or recommended option. Prohibiting conflicting uses does protect critical wetland functions as well as some urban aesthetics and connections to nature. On the other hand, prohibiting any conflicting uses would reduce already limited residential development opportunities, increasing housing costs and housing and utility provision efficiencies, both of which have negative economic, social and energy consequences. The net negative consequences of this alternative make it less attractive.

Allowing all conflicting uses has a mixed bag of consequences as well. Most dramatic are the negative environmental consequences of this option. The critical functions of the wetlands including water quality and in particular, hydrologic (flood) control, will be destroyed under this option. These functions are expensive and difficult to otherwise address and impossible to replace. There are positive social and energy consequences of this option, but the most compelling positive consequences are economic. Efficient urban development and the provision of scarce residential land are compelling economic benefits of allowing all conflicting uses.

*On balance, the ESEE consequences analysis supports **limiting conflicting uses on SV-4 and SV-5**. It is Sampleville's determination that both the resource site and the conflicting uses are important compared to each other. Limiting conflicting uses on the whole preserves positive consequences from both the "all conflicting" and "no conflicting" uses options. By allowing streets to be constructed where access is most efficient or promotes efficient circulation and allowing driveway construction where portions of taxlots are landlocked by wetlands, this option preserves the majority of wetland area and, in turn, the majority of wetland functions, and aesthetics while mitigating impacts to the residential lands inventory, and overall urban efficiency.*

Recommendation: *Allow the following conflicting uses conditionally for SV-4 and SV-5:*

- *Street construction (local, and minor collectors) where efficient circulation necessitates it.*
- *Driveway/Access construction where portions of taxlots are landlocked by wetland. Construction must avoid wetlands as much as possible.*

Note: All development remains subject to DSL fill/removal permit process

Reduction in the Buildable Land Inventory:

The City of Sampleville conducted a buildable lands inventory in 2003. The acreage associated with SV-4 and SV-5 (site and impact area) were both counted as "buildable" in the existing buildable lands inventory. Because these lands will allow limited conflicting uses, 4 of the 4.8 residential acres should be subtracted from the buildable lands inventory.