

Figure 7:
Breakout Groups at public work session.



II. OPPORTUNITIES AND CONSTRAINTS

As a beginning point for creating the Irasville Growth Center Master Development Plan, information was gathered as to what physical constraints exist, what opportunities are possible to incorporate and what the components are of growth centers. In addition, it was important to understand what the current limitations are on the site based upon local regulations. A buildout analysis of how the existing Zoning Regulations influences the development of land was done.

PUBLIC INPUT

One of the important aspects of designating and creating a Growth Center is to include input from existing landowners. The design team interviewed Irasville business owners and residents to include their ideas in the design process. These landowners included Mad River Massage, Brothers Builders (Pat Thompson), Wood and Wood Signs (Sparky Potter), Waitsfield Inn (Mr. And Mrs. Masson), and Brian Shupe. The comments received from this group included the following:

- Speed and volume of traffic on Route 100 is a concern.
- There should be pedestrian links from the village up and down the Mad River to Waitsfield and the swim hole.
- There need to be more apartments and residences in this area to attract the labor needed to make the commercial areas viable.
- Route 100 should have stop signs in Irasville.
- There needs to be a few 20,000+ sf buildings in the growth center.
- Current parking seems to be more than adequate. Future parking should be more general in nature and not associated with a particular building or use.
- Creating one more truck friendly intersection with Route 100 would help the village area.
- Need sidewalks on Route 100.
- Bring buses into village area.
- There should be residential uses north of Irasville, linking it with Waitsfield Village (around the back side of the hill).
- Some parcels are key to the development of Irasville, such as the northwest corner of the Slow Road.
- The Master Development Plan is going in the right direction.

These comments were considered as the design process evolved.

WATER/WASTEWATER LIMITATIONS

Municipal sewer and water are a necessity for the growth center. According to the Irasville Survey conducted in May 2001, 95% of respondents favored developing municipal water and sewer at Irasville to spur development and concentrate growth. The numbers and amount of square footage in this report assume that a sewage treatment facility will be built in the near future. Certain aspects of the existing Irasville area are successful, however, the need for onsite sewage disposal limits expansion and development concentration. A municipal sewer system would allow for higher density. It would also create opportunities for further retail and commercial/entertainment options and housing of all types but especially affordable housing. If Waitsfield is unable to provide municipal sewer, the Irasville Growth Center may develop incrementally over time, but will be unable to reach the level of density that is intended.

Presently, Phelps Engineering is working on a Sewer and Water Study for Waitsfield and Irasville. The sewer and water study has defined several basic parameters for planning purposes:

- Village water is an absolute necessity and should be provided for all businesses and residences in Irasville.
- Providing municipal water will allow for some additional infill development to occur as the isolation distances from private wells will be erased such that some of the onsite septic systems can be enlarged for additional capacity.
- The planned thresholds for sewage treatment at the Munn site allow for untreated waste to be disposed in a leach field with 30,000 gallons per day (gpd) capacity. Of that capacity, between 15,000 and 20,000 gpd will need to be used for connecting failed systems in Irasville. That leaves about 10,000 to 15,000 gpd for additional growth that could arise from the growth center. This would equate to approximately 40 housing units (12,000 gpd for 2 BR), 50,000 SF of commercial space (2,500 gpd), and 50,000 SF of office space (1,500 gpd).
- The planned capacity of the Munn site will accommodate about 25% of the buildout of the upper area of the Irasville growth center. Upgrading the system to secondary or preferably tertiary treatment would allow as much as 70,000 gpd at the Munn site at a significant increase in cost that could be offset by increased density. Financing of such an upgrade would likely require the purchase of sewage allocation credits by developers of commercial and residential projects and the cost (possibly as much as \$25,000 per unit, twice the cost of a typical mound system).
- The planned capacity at the Munn site wouldn't likely accommodate any residential development of the lower area by Fiddler's Green, given the density of residential units in that area.
- It appears that additional capacity will be needed in the future, although advances of "innovative" and "alternative" sewage

technologies for pre - treatment could meet much of that need. The Towns ambitions for the growth center for long term development will require continued public investment.

- Onsite septic assumes that many existing uses with septic fields will remain in place.
- Municipal sewer allocations will be made primarily to the new growth in Irasville and replacing defective existing systems.
- Assume that municipal water is provided for all uses so that isolation distances between on-site septic fields and wells can be erased.
- Assume that a threshold of 30,000 gpd is the initial limit on the Munn site without pre - treatment. Assume that 15,000 to 20,000 gpd of capacity are reserved to connect failed systems in Irasville, that leaves 10,000 to 15,000 gpd of capacity for new uses for an initial phase of sewer system development.

Irasville Growth Center Wetland Classification

Note:
Wetlands to the north of Route 100 were field delineated and surveyed in the Summer of 1998. Wetlands shown to the south of Route 100 are based on field reconnaissance and may not represent all wetlands in this area or be accurate as to

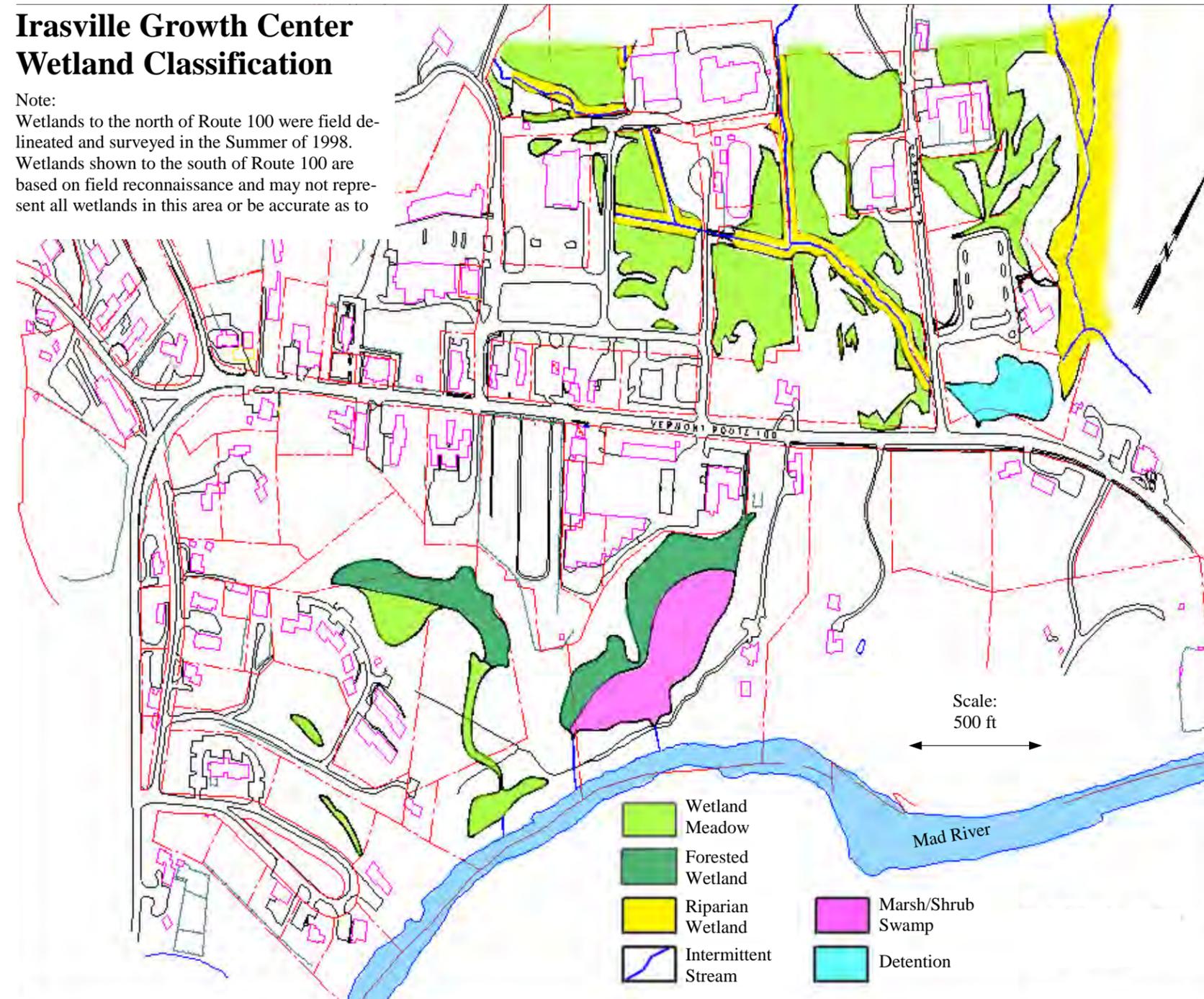


Figure 8: Wetlands Classification Plan

WETLANDS ASSESSMENT

The Irasville Growth Center area contains several types of wetlands determined by landscape position, hydrology, soils, and vegetative cover. These wetlands were divided into different “types” to allow a more accurate and location-specific functional evaluation and were classified according to *Classification of Wetlands and Deepwater Habitats of the United States* (Cowardin, L.M., et al, Dec. 1979).

Several wetland functional evaluation methods applicable to this portion of New England were used:

- *State of Vermont Wetland Rules;*
- *US Army Corps of Engineers Highway Methodology; and*
- *Method for the Comparative Evaluation of Nontidal Wetlands in New Hampshire.*

The wetlands occurring in the Irasville Growth Center area were classified into six functional types based on hydrology, vegetation type, position on the landscape, and relationship to other landscape features. Their ability to provide any of the ten wetland functions recognized by the State of Vermont Wetland Rules was evaluated.

The Detention Pond near Route 100 at the north end of the Growth Center was determined to exhibit the greatest number of functions (7 out of 10) because of its ability to detain and treat stormwater, provide habitat for fish and possibly other species of wildlife, and to provide an aesthetically pleasing landscape feature and occasional recreation resource.

The Riparian Wetland and Intermittent Streams were determined to provide 5 out of 10 and 4 out of 10 functions, respectively. Taken as one system, they provide 7 out of 10 functions. This is due to the presence of significant surface water, the ability to handle and treat surface water on its way downstream, and the aesthetically pleasing nature of flowing water.

The Marsh/Shrub Swamp was determined to provide a fair number of functions (5 out of 10) because of its relatively remote location, lower level of disturbance, and relationship to other wetland types as well as the Mad River.

The Forested Wetlands were determined to provide 3 out of 10 functions because of its dense cover of vegetation, potential to support wildlife habitat, and its ability to aesthetically enhance the landscape.

The Wetland Meadows were determined to provide the fewest functions. This is due in large part to landscape position, hydrology, and land use. The functions provided by this wetland type are similar to those provided by upland meadows.

The *Irasville Growth Center Wetland Functional Evaluation Report* was

prepared in December 2001. It outlines the process taken to identify and classify wetlands and what their specific functions are today. See Appendix A.

WATER QUALITY MONITORING

The Waitsfield Town Plan has designated Irasville and Waitsfield villages as growth centers. The focus of the current planning effort is on Irasville where development pressures are greatest. The intent is to cluster retail, office, and residential uses near existing services to reduce environmental, social, and economic costs. This type of development will also simplify collection, detention, and treatment of stormwater before discharge to the Mad River.

Currently the easiest type of development to get permitted is a single use, low density project on an individual small (one acre) parcel of land. This type of development avoids the need for large septic capacity or innovative treatment, stormwater management review, Vermont's Act 250 land use permit process, and simplifies wetlands permitting.

The goal of the Irasville Growth Center Master Development Plan is to make desirable development the path of least resistance, through a joint Master Development Planning process, master wetlands and stormwater planning, comprehensive stormwater management, improved zoning, and public outreach on these complex issues.

The objectives of the Irasville Growth Center Stormwater Quality Monitoring are to:

- Identify and quantify pollutants carried in stormwater runoff
- Enable informed design of stormwater treatment systems
- Provide guidance for the creation of a Stormwater Management Plan
- Continued monitoring to provide feedback on the effectiveness of the Stormwater Management Plan, the existing stormwater infrastructure, and identify water quality trends
- Assist in the evaluation of existing wetland functions
- Encourage citizen involvement and awareness of watershed issues.

Surface water from the Irasville Growth Center northwest of Route 100 is collected by a small stream that has its headwaters on the steep hillside to the northwest of the town line. Near the intersection of Carroll Road and Route 100, an artificial pond receives stream flow. The pond overflows into the natural stream channel that then continues northeastward to its confluence with the Mad River at the southwestern edge of Waitsfield village.

Southeast of Route 100, numerous groundwater seeps issue from the terrace escarpment and, combined with surface water flow draining down

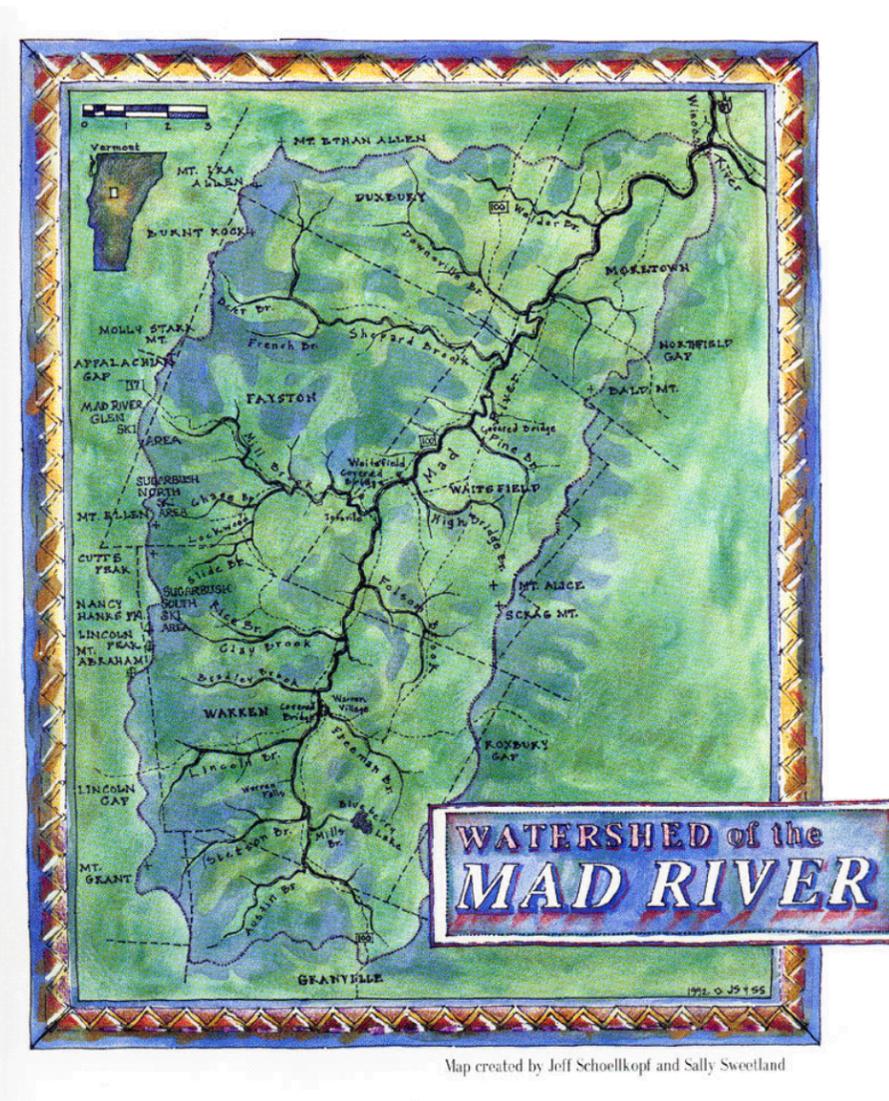


Figure 9: Watershed Map of the Mad River

over the face of the escarpment, enters the Mad River through two small streams.

Substantial areas of wetlands occur on both sides of Route 100 in the Growth Center. Wetlands northwest of Route 100 are dominated by wet meadows and riparian wetlands. To the southeast of Route 100, there are marshes, wet meadows, forested, and scrub-shrub wetlands.

To characterize stormwater runoff quality, water was sampled at two locations upstream of, and five locations downstream of, the Irasville Growth Center area. Parameters have been selected that are meaningful and will increase understanding of the effects of development on stormwater quality. They include total suspended solids, total phosphorous, and E. coli. Informal measurements of water temperature

and stream flow were part of the characterization of ambient conditions during sampling.

As a result of this study, samples should be collected four times per year, during precipitation or thaw events in the Winter, Spring, Summer, and Fall. Carried out over a long period of time, it could also provide information on the effectiveness of stormwater management practices.

The *Quality Assurance Project Plan for Irasville Growth Center Stormwater Quality Monitoring Report*, dated May 4, 2001, was reviewed and approved by the United States Environmental Protection Agency (EPA) and should be used as a guide for evaluating stormwater water quality in Irasville. In addition, one round of stormwater monitoring was performed following the Quality Assurance Project Plan guidelines was performed in May 2002. See Appendices B and C.

WHAT MAKES A TOWN CENTER?

Many towns in Vermont are the product of historical development, often originating hundreds of years ago. In the 18th and 19th centuries, towns built town halls, schools, and designated town commons as parade grounds and grazing lands. Churches, masonic halls, stores, and factories were built by private businesses. Land was subdivided to create large agricultural parcels in the countryside and smaller village size lots for houses, businesses, and public institutions in the town center. Streets were laid out by the town leaders and provided essential access and connections.

The form of a town center was influenced by the landscape: rivers, valleys, hilltops or other physical restrictions, or the lack thereof. In the absence of zoning, there were few legal restrictions on the development of land. There were, however, restrictions on building types due to wood frame construction. In the earlier centuries, there were “pattern books” that many carpenters and master builders followed that prescribed appropriate styles for homes and other structures. The result was an environment with a certain consistency and charm that is now highly regarded in Vermont.

The scale of a town center varied according to the population of the surrounding town and ranged from a small crossroads with a small cluster of houses and a store, to moderate size hamlets or villages, to bustling commercial centers. The size of any given town center grew in proportion to the community’s economic prosperity, demand for commercial and professional services, and significance of its public and cultural institutions such as town halls, libraries, churches, and schools. All this occurred in a seemingly well orchestrated cause and effect relationship that was largely market driven with some guidance by town leadership.

The influence of transportation also played a heavy role, as the railroad towns became the centers of manufacturing and commerce. Rural farming towns without railroad infrastructure were smaller and more self-subsistent. Such was the case with Irasville and Waitsfield.

How big is a town or village center? The layout of town centers varies dramatically from place to place and there is no clear rule of thumb. Each center is unto itself a unique place. There are also many scales of traditional town and village centers: crossroads, hamlet, village, town, and city. Most villages or moderate size towns like Waitsfield have a core density of residences, commercial businesses, and public buildings. Actual numbers vary but it is not uncommon to have several hundred residences in a village or town center with between 250,000 and 500,000 square feet of other buildings. Generally most town centers can be traversed by a person on foot in ten to fifteen minutes, or a distance of ¼ to ½ mile across.

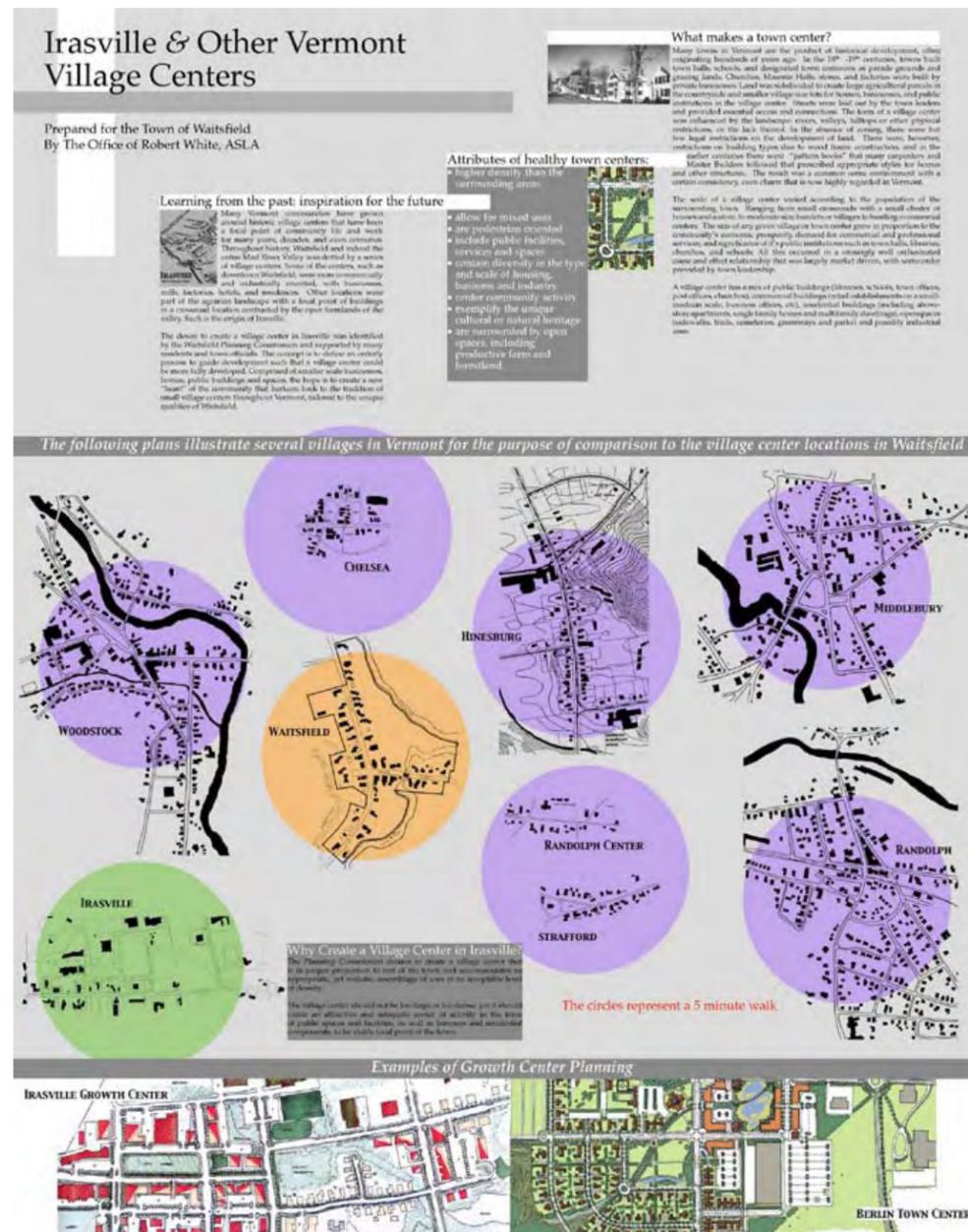


Figure 10: Town Center Panel

As the development of Irasville unfolds, the proximity and relationship of Irasville to the Village of Waitsfield is also a question. Historically speaking, the two should be kept apart as separate unique places, yet there is a sense that the two should or will become one. If that happens, will Waitsfield still be a village center with a pedestrian scale or will one need an automobile for it to function?

What do other town centers in New England look like? A town center has a mix of public buildings: libraries, schools, town offices, post offices,

churches, commercial buildings such as retail establishments on a small-medium scale, business offices, etc, residential buildings including above-store apartments, single family homes and multifamily dwellings, open spaces such as sidewalks, trails, cemeteries, greenways and parks, and possibly light industrial uses.

Figure shows examples of other village and town centers in northern New England. Some are relatively small and informal; others are more urban in character.

WHY A GROWTH CENTER IN IRASVILLE

Growth for Irasville should not mean negative change if the pattern of new development is guided by historical precedents and integrates beneficial development that will improve the quality of life in the community. The desire is to create a true village center, where residents live in neighborhoods, where goods and services are efficiently located nearby. Additional benefits will also be created: surrounding productive lands can be kept in agriculture, affordable housing and local job growth can be accommodated, and a multi-generational community will be made possible, so that elder residents can remain in the community and have access to healthcare and other services.

What is smart growth? According to the VT Forum of Sprawl, traditional Vermont town centers have several attributes:

- Higher density than the surrounding areas,
- Allow for mixed uses,
- Are pedestrian oriented,
- Include public facilities, services and spaces,
- Contain diversity in the type and scale of housing, business and industry,
- Center around community activity,
- Exemplify the unique cultural or natural heritage, and
- Are surrounded by open spaces, including productive farm and forestland.

According to the EPA, the following are desirable principles of Smart Growth:

- Mix of land uses,
- Compact building design,
- Create a range of housing opportunities,
- Create a walkable community,
- Foster a distinctive sense of place,
- Preserve open space, farmland, natural beauty, and critical environmental areas,
- Focus and strengthen development towards existing community centers,
- Provide alternative transportation choices,
- Make development decisions predictable, fair and cost effective, and
- Encourage public involvement in the planning process.

The benefits of creating a town center in Irasville specifically are:

- Irasville has a dire need for improvements to its water supply and sewage disposal systems. Operating solely on onsite systems for both, water quality and sewage treatment are perilously close to unacceptable levels of contamination.
- Creating new neighborhoods for mixed housing will create options for affordable housing as well as middle upper income housing so that residents have housing choices in attractive neighborhood settings that are at walkable distances to service, school, jobs and other basic needs.
- Creating a magnet for commercial development will allow that inevitable growth to be focused efficiently and planned for.
- The town does not really have a central heart either as a public building or outdoor space. While there are a few small parks and the Mad River Path, a large outdoor gathering place doesn't exist.

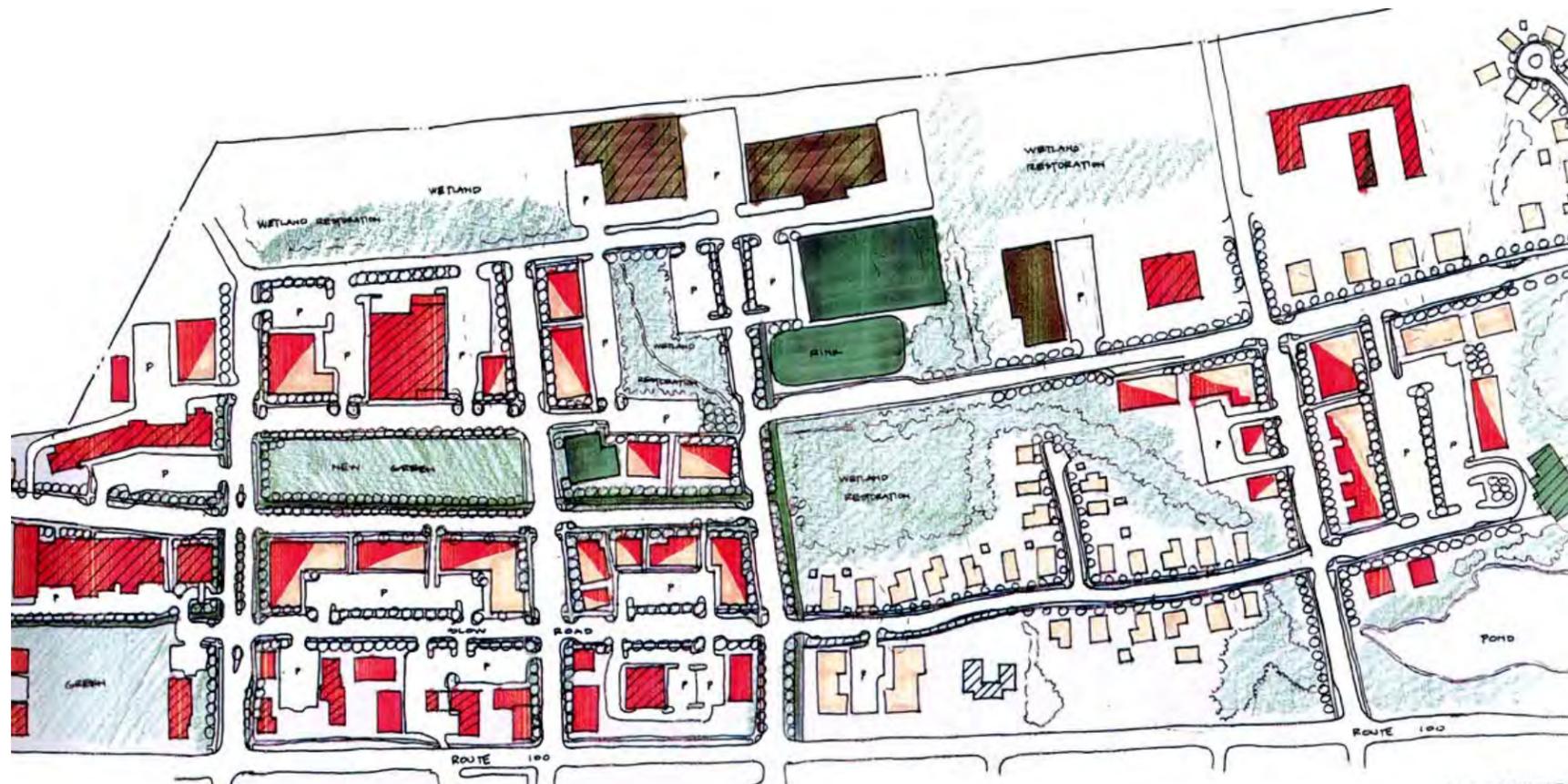


Figure 11: Original Master Plan Prepared by Lamoureux & Dickinson and Julie Campoli in 1998

AN UNPLANNED FUTURE: BUILDOUT ANALYSIS OF EXISTING ZONING

In order to understand the impacts of local regulations on the site, a buildout analysis was prepared. This buildout analysis plan reflects the existing conditions of the site. It doesn't include any provisions for municipal infrastructure for water or wastewater.

The Buildout Analysis plan parameters were determined using the following information:

- Current zoning regulations,
- A standard footprint size with corresponding septic area,
- An assumed use for the new structure,
- Basic Soil Survey information,
- The location of current septic systems and wells,
- Existing building uses and locations,
- Existing road patterns, and
- Existing wetland, tree stand steep slope and other environmental resource locations.

An analysis of the existing soils of the growth center area was done to determine which soils are suitable for on-site sewage disposal. It was determined from this information that there are limited pockets of soils that will support septic systems. See Table 1 and Figure 13.

Using these parameters, the amount of undeveloped upland area was calculated for each lot. Verification was done of the size and use of the existing buildings on each lot was verified against the undeveloped upland area to determine if unused development potential remained. The potential was mapped as buildout potential, either as residential, commercial or mixed use. Upland portions of undeveloped lots were considered totally available as potential buildout areas. For those properties that had buildout potential but did not have enough room for a standard footprint, a smaller building footprint was used to take advantage of the available land.

Figure 12 is the Buildout Analysis plan. The Buildout Analysis Plan shows:

- 26 new 1,250 square foot (sf) residential footprints
- 2 new 1,250 sf commercial footprints totaling 2,500 sf
- 4 new 1,250 sf mixed use footprints totaling 5,000 sf.
- 7 new 2,500 sf mixed use footprints totaling 17,500 sf.

The 2,500 sf footprints include allowances for 7,750 sf of parking area plus 12,600 sf for septic systems (900 gpd) for a total utilized land area of 22,850 sf. The 1,250 sf footprints include allowances for 2,100 sf of parking area plus 6,000 sf for septic area (450 gpd) for a total utilized land area of 9,350 sf.

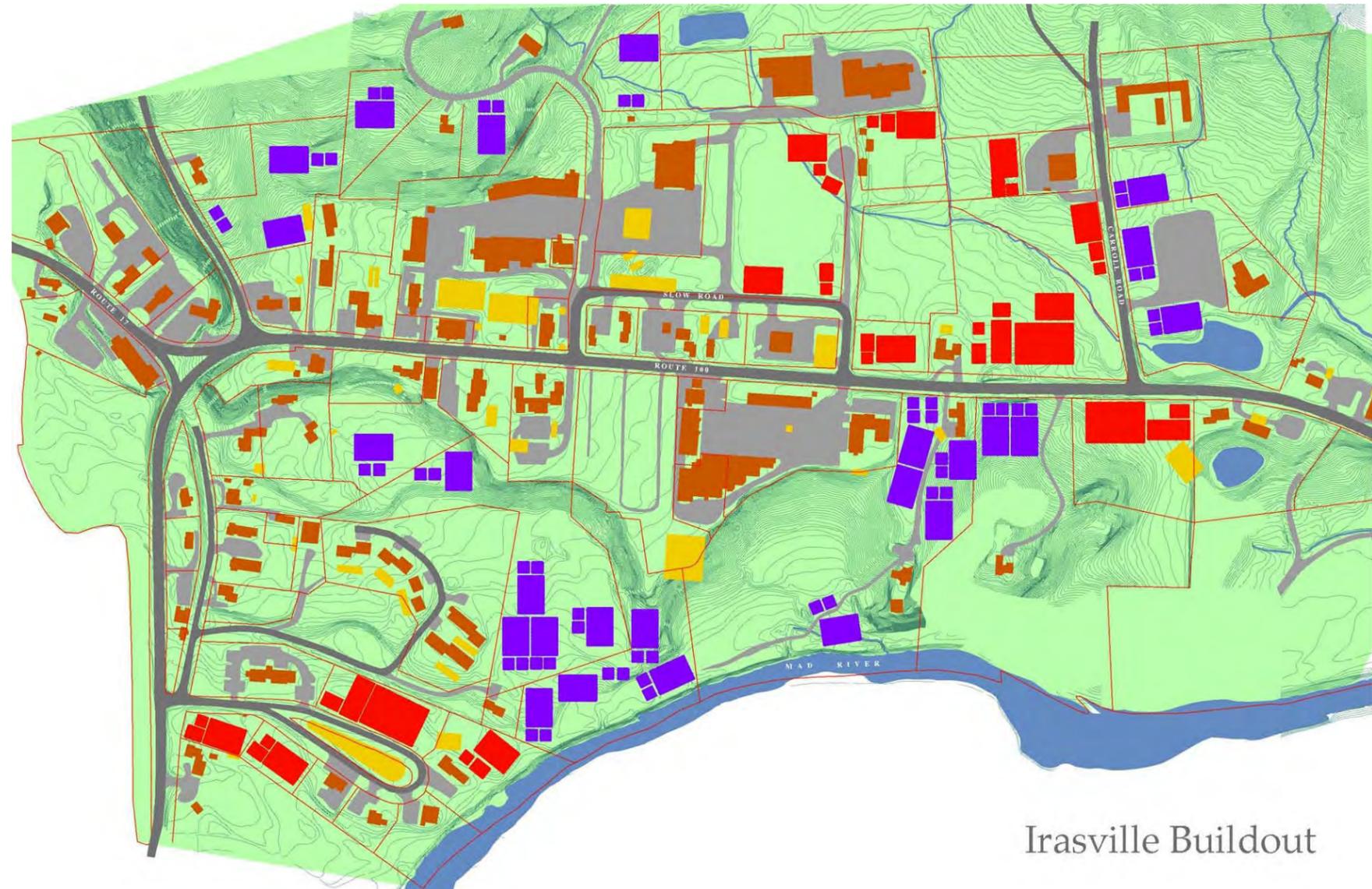


Figure 12: Irasville Buildout Analysis Plan

Table 1

Map Unit Symbol	Map Unit Name	Generally suitable for on-site sewage disposal?
3A	Rumney fine sandy loam, 0 to 3 percent slopes	No
33A	Machais fine sandy loam, 0 to 3 percent slopes	Portions may be suitable*
33B	Machais fine sandy loam, 3 to 8 percent slopes	Portions may be suitable*
39A	Colton gravelly loamy sand, 0 to 3 percent slopes	Yes
39B	Colton gravelly loamy sand, 3 to 8 percent slopes	Yes
39C	Colton gravelly loamy sand, 8 to 15 percent slopes	Yes
39E	Colton gravelly loamy sand, 25 to 60 percent slopes	No
43B	Salmon very fine sandy loam, 3 to 8 percent slopes	Yes
43E	Salmon very fine sandy loam, 25 to 60 percent slopes	No
44B	Lamoine silt loam, 3 to 8 percent slopes	Portions may be suitable*
44C	Lamoine silt loam, 8 to 15 percent slopes	Portions may be suitable*
45A	Scantic silt loam, 0 to 3 percent slopes	No
58A	Grange silt loam, 0 to 3 percent slopes	No
59A	Waitsfield silt loam, 0 to 3 percent slopes	No
60A	Weider very fine sandy loam, 0 to 3 percent slopes	No
72C	Tunbridge-Lyman complex, 8 to 15 percent slopes	No
72D	Tunbridge-Lyman complex, 15 to 35 percent slopes	No
78D	Peru gravelly fine sandy loam, 15 to 35 percent slopes	No

* For mound systems only.

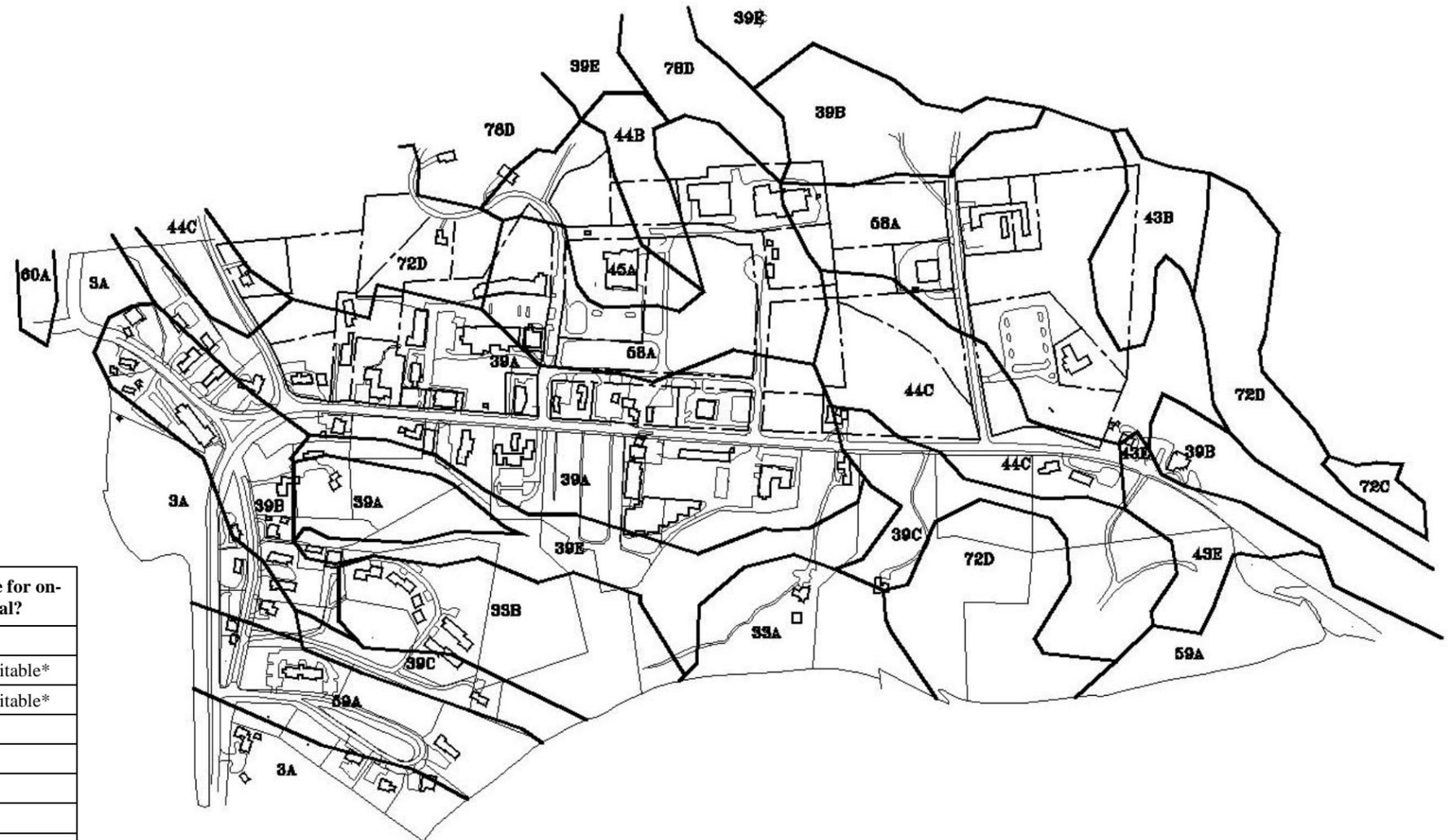


Figure 13: Soils Plan of Irasville

A few conclusions can be made from the Buildout Analysis.

- Very little additional development can be realized without a plan and infrastructure.
- The buildout analysis exacerbates the current public health issues with wastewater capacity and water quality.
- Minimal new housing can be accommodated.
- Minimal new job growth potential exists thereby limiting economic benefits for the town and residents will continue to be forced to drive to work elsewhere.
- Inefficient strip development is perpetuated because existing development cannot expand.

Without further planning, these forces will create their own future influenced only by the desires of an individual property owner.

In order to truly understand what the buildout analysis results are showing, Figures through have the Irasville Buildout Analysis Plan with traditional town centers overlaid at the same scale. This begins to show how dense downtown development can be in relations to what the Zoning Regulations allow.

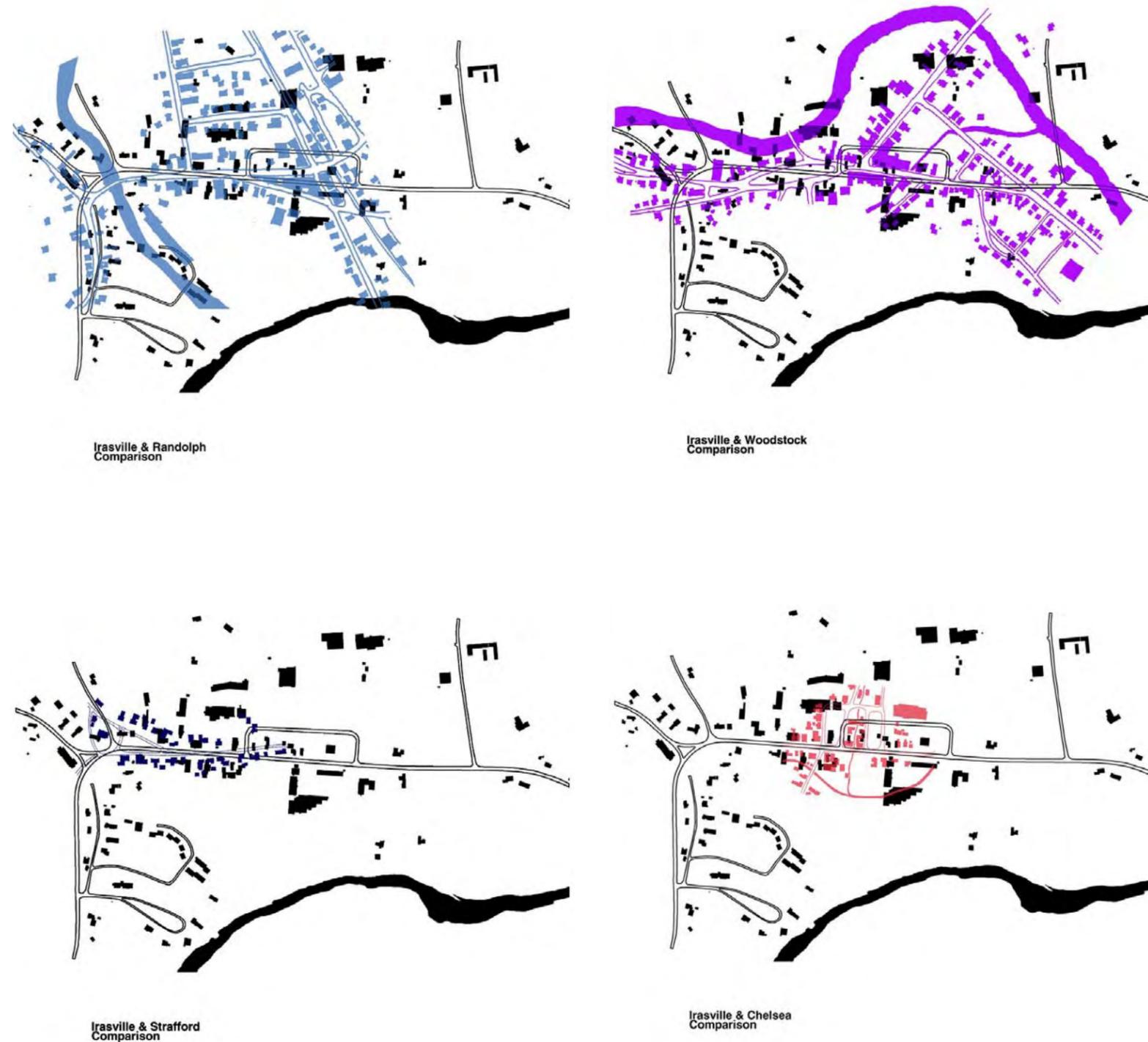


Figure 14:
Plan of Irasville Overlaid on Different Existing Town Centers
to Understand the Relationship of Size and Scale

MARKET ANALYSIS

The town of Waitsfield contracted with Economic and Policy Resources, Inc. of Williston to undertake an economic study of the Irasville growth center. The intention of the study is to lay the groundwork for developing future economic development strategies. Included in the study is a strategic assessment of the Waitsfield and Mad River Valley economy. The report also identifies key growth industries and major employers. Information is provided as to the current economic climate, and makes projections regarding future demographics and potential economic growth. The study developed the twenty-year projections assuming that there will be no infrastructure constraints on economic and population growth during that time. Changes and trends in Waitsfield and Irasville were looked at in relation to regional trends of Washington County and northwest Vermont.

Summary of Projections

- The population of the Valley will increase by 2600 residents.
- Waitsfield will likely experience the slowest rate of growth, adding just 600 new residents.
- The total number of households is expected to increase to just over 1300 by 2020.
- Waitsfield will absorb 260 households or 20% of the total number of projected households.
- The Valley will likely see an increase of over 900 non-farm jobs, most of them in Waitsfield.
- Most of the jobs will be in the Service and Retail sectors, however, Manufacturing, Public Utilities, Finance, Insurance and Real Estate will also experience some growth.
- Construction is the only sector expected to lose jobs over the next twenty years, projecting a loss of twenty jobs by 2020.
- The projections indicate that 136,000 additional square feet of non-residential space will be needed in Waitsfield to accommodate job growth over the next twenty years.

Significant Issues for Community Review

- The natural beauty of the community is a positive regional resource. It is a source of community pride, reported to help generate customers and attract employees.
- Public sewer and water is the greatest limiting factor to developing Irasville. The infrastructure is necessary to develop the density needed for a viable growth center.
- A severe housing shortage is limiting economic development and is exacerbated by the lack of public sewer and water.
- Opportunities to increase the local labor pool lie in retaining the 5-19 year olds. Creating a nightlife, and non-outdoor recreation may be an important economic development strategy.
- Valley businesses producing high end products and niche markets are the most viable.
- The high technology infrastructure provided by Waitsfield Telecom is exceptional for a small rural community. It appears to be an important resource for recruiting and retaining businesses.

Recommendations

- A comprehensive review and analysis of appropriate economic development strategies for Waitsfield should be included in the Master Plan.
- Economic development should at the minimum include the protection of the Valley's natural assets, the fullest utilization of the high technology infrastructure that is practical, and a focus on niche markets.
- The Town should establish a specific target for the number of new jobs and housing units they want to locate in Irasville Growth Center, implement appropriate zoning and development policies, and follow through on required infrastructure development.
- The possibility of establishing a Tax Increment Financing District should be investigated through the Vermont Economic Progress Council incentives program for the Irasville Growth Center as part of the financing mechanism for infrastructure development.
- The study recommends that an Economic Development Leadership Committee be established to: (1) implement the recommendations in this report, (2) complete the formulation of specific economic development strategies to be included in the Master Plan, and (3) establish and monitor benchmarks or measures of success related to the economic development components of the Master Plan.