

3.10 RECREATION

3.10.1 Affected Environment

This section assesses the potential effects of the proposed action and alternatives on recreation and tourism in the project area, which includes a one-mile buffer or corridor around each of the proposed routes with the exception of the towns of Twisp and Okanogan, which were excluded from the project area. A slightly larger area is included along the southern portions of the Valley Floor and Pateros/Twisp routes to include potential access issues associated with the Pateros/Twisp route (Figure 3.1-1).

Comments made during public scoping for this project identified the following issues with respect to recreation:

- The proposed alternatives may affect tourism, recreation, and recreation-related businesses in the Methow Valley.
- The proposed Gold Creek Substation may impact recreational activities such as rafting and fishing. The substation was moved to avoid the area in question. The current proposed substation location is addressed with other proposed actions.

The following affected environment section is divided into three main parts that discuss the regional recreation setting, the project area setting, and the regulatory setting, respectively.

3.10.1.1 Regional Setting

Okanogan County and the Methow Valley offer a variety of outdoor recreation opportunities, including a variety of snow sports, water sports, hiking, mountain biking, and equestrian trails. Outstanding recreation opportunities in Okanogan County include fishing, whitewater rafting, lake activities, Nordic ski trails/cross-country skiing, and hiking. Migrating and resident wildlife provide opportunities for hunting and wildlife observation. Okanogan County also includes a number of popular recreational fishing areas. These areas offer warm water fisheries and cold water trout and steelhead fisheries, as well as several popular bass fishing sites (Okanogan County, 2004c).

Recreation and tourism plays an important role in the county economy and also makes a substantial contribution to the quality of life of local residents. Federal, state, and county land management agencies with jurisdiction over portions of the county manage their lands to preserve recreation resources and in many cases work to enhance those resources. Collaboration between the County, the USDA Forest Service, citizen-led groups, and the state in the early 1980s, for example, led to the development of ski and bicycle trails to meet increasing local and regional recreation demand (Okanogan County, 2004c).

3.10.1.2 Project Area Setting

The project area for the purposes of this discussion generally includes a one-mile buffer or corridor around each of the proposed routes. A slightly larger area is included along the southern portions of the valley floor and Pateros/Twisp routes to encompass potential access issues associated with the Pateros/Twisp route (Figure 3.3-1). The following discussion identifies the developed recreation sites and dispersed recreation activities that are located within and tend to take place within the project area, respectively. These sites and activities have developed and evolved over time in response to past management actions by the USDA Forest Service and other land management agencies, as well as other developments and initiatives, such as the cleared right-of-way (ROW) for the existing Loup Loup transmission line, which is currently used by hunters, among others.

Developed recreation sites located within the project area are identified in Table 3.10-1. This table also identifies the recreation opportunities available at these sites, their general location with respect to the

project area, and the responsible managing agency. Dispersed recreation uses in the project area include camping and hunting and occur mainly on National Forest System (NFS), Washington State Department of Natural Resources (WDNR), and Bureau of Land Management (BLM) land. This includes the use of the existing Loup Loup transmission line right-of-way (ROW) by hunters during the general deer season. It is common to see more than 100 hunters spread over 15 to 25 camps within the existing ROW for the 10 day to two week season (Archambeault, 2004). Other dispersed recreation uses in the area include snowmobiling and cross country skiing.

Winter activities draw as much interest to the Methow Valley as warm season activities. Winter facilities within or adjacent to the project area include a number of cross-country ski trails, two snow parks, and the Loup Loup Ski Area, which offers downhill and cross-country skiing and snowboarding. The Loup Loup Ski Bowl averages 25,000 visits a year and typically operates 4 days a week and holidays during the snow season. Sno-Parks in the Loup Loup area commonly operate from December through March and average 50 visitors a week (Archambeault, 2004). Snowmobiling is the primary recreation opportunity at the Loup Loup North Summit Sno-Park and also occurs at the Loup Loup South Summit Sno-Park. The Loup Loup South Summit Sno-Park also offers cross-country skiing opportunities (Table 3.10-1).

The Methow River between Twisp and Pateros offers whitewater rafting, kayaking, tubing, and other boating opportunities. Several professional whitewater rafting companies offer rafting trips on the Methow River from April through July (Archambeault, 2004). The 16.5-mile stretch of the Methow River from Methow to Pateros ranges from Class II to Class IV rapids and includes the Class IV stretch called the “Black Canyon.” Intermediate whitewater rafting and kayaking trips are offered on the Methow River between Carlton and Methow from July to August. Inner tube floating is a popular activity on the Methow River in August (Duke Engineering, 1998).

Table 3.10-1. Developed Recreation Opportunities within the Project Area

Recreation Site or Place	Recreation Opportunity	General Location in the Project Area	Managing Agency
Loup Loup Ski Bowl	Downhill Skiing, Cross-country Skiing, Snowboarding, Tubing, Snowshoeing	North of State Highway 20	USDA Forest Service
Loup Loup North Summit Sno-Park	Snowmobiling	North of State Highway 20	USDA Forest Service
Loup Loup South Summit Sno-Park	Nordic Area (groomed and ungroomed cross-county skiing), Snowmobiling	South of State Highway 20	USDA Forest Service
JR Campground	Camping, Hiking, Picnicking	North of State Highway 20	USDA Forest Service
Leader Lake	Fishing, Camping, Boating, Scenic Viewing	North of State Highway 20	WDNR
Methow River Access	Fishing, Floating, Rafting, Kayaking	Various places along the banks of the Methow River	WDFW
Loup Loup Campground	Picnicking, Camping, Hiking	North and South of State Highway 20	USDA Forest Service
Sweat Creek Campground	Camping, Picnicking	North of State Highway 20	WDNR

Note:

WDFW = Washington State Department of Fish and Wildlife

Source: USDA Forest Service, 2004c; Okanogan County, 2004d.

Recreational fishing takes place on the Methow River with the game fishing season extending from June 1 to August 31. Guided fishing trips are available on the Methow River from July to September. Trout are the most popular catch for local residents and visitors. The National Marine Fisheries Service in 1998 designated steelhead runs in danger of extinction in the upper Columbia River Basin, which

includes the Methow River tributary. Accordingly, steelhead fishing is closed except under an emergency opening, which the system received the last 2 years in October. Additionally, fishing for bull trout is no longer allowed in the Methow River because the Upper Columbia River bull trout were listed as Threatened on June 12, 1998.

Recreational fishing also takes place on the Okanogan River. Trout fishing was closed on the Okanogan River for 2004. Other game fish may be fished year round south of the highway bridge at Malott and from June 1 to August 31 north of the bridge (WDFW, 2004c). The Okanogan River is also used for tubing during the summer.

In 1982, the Nationwide Rivers Inventory published by the National Park Service identified the Methow River as a potential Wild and Scenic River (Duke Engineering, 1998). The section of the Methow River within the project area was considered to have outstanding value for recreation, specifically for water sport use (rafting, tubing, and kayaking). The portion of the river between the Okanogan National Forest boundary northwest of Winthrop and Carlton received an overall recreation rating of above average based on its whitewater boating and kayaking opportunities. Downstream of Carlton, the Methow River received an overall rating of high based on whitewater boating and kayaking opportunities (Duke Engineering, 1998).

The Methow River was also recommended for the Wild and Scenic River designation in the 1989 Okanogan National Forest Plan and NFS lands within one-quarter mile of the river are managed accordingly (USDA Forest Service, 1989). USDA Forest Service Wild and Scenic River recommendations are preliminary administrative recommendations. Final decisions on designation as part of the National Wild and Scenic River System are made by Congress. The Methow River has not been designated a Wild and Scenic River because there has been insufficient support to advance this recommendation through to Congress (Archambeault, 2004).

A Stage 1 suitability analysis was performed on all creeks on the Okanogan National Forest in March 1995 and January 2000. An assessment of outstanding and remarkable values was conducted in February 2000. A Stage 2 screening has not been done. The NFS portions of the following creeks in the project area were found to be potentially eligible for Wild/Scenic/Recreation River status in the Stage 1 analysis:

- Gold Creek (class unknown, outstanding values: scenic, wildlife, recreation, botanic)
- Libby Creek (class unknown, outstanding values: scenic, wildlife, botanical, water)
- Beaver Creek (class unknown, outstanding values: wildlife, fish)
- Frazer Creek (class unknown, outstanding values: wildlife, fish)
- Jack Creek (class unknown, outstanding values: wildlife, fish).

The proposed alternative routes either parallel State Highway 153 or State Highway 20 (see Figure 3.1-1). Many people sightsee from these highways. State Highway 20, and to a lesser extent State Highway 153, are also popular routes for cross-state bicyclists, many of whom use the Loup Loup, JR, and Sweat Creek campgrounds. State Highway 153 from Pateros to Twisp was designated a scenic highway by the State Legislature in 1967 and is part of the tourism-oriented “Cascade Loop,” a scenic loop highway that extends 400 miles from the Puget Sound to the Columbia River Valley. The portion of State Highway 20 that extends north from Twisp to Winthrop and west across the Cascades is part of the North Cascades Scenic Highway and the Cascade Loop. The stretch of State Highway 20 that extends east from Twisp to Okanogan, the portion within the project area, is not considered part of the scenic highway (Connelley, 2004), although the Okanogan National Forest Plan allocates the NFS lands to scenic and recreation management.

3.10.1.3 Regulatory Setting

USDA Forest Service - Okanogan National Forest

The 1989 Okanogan National Forest Land and Resource Management Plan, as amended, categorizes land based on the USDA Forest Service's national Recreation Opportunity Spectrum (ROS). The ROS system provides a framework for planning and managing recreation resources. The ROS settings are classified using a scale ranging from primitive to urban. Seven elements are used to determine where a particular setting belongs on the scale including visual quality, access, remoteness, visitor management, on-site recreation development, social encounters, and visitor impacts. Portions of the NFS lands within the project area, east and west of State Highway 153, were inventoried at the time of the Forest Plan as Roaded Modified, Roaded Natural, and Semi-Primitive Non-Motorized ROS classes. The Okanogan National Forest Plan allocated most of the NFS lands within the project area to Roaded Modified and Roaded Natural ROS classes. The developed recreation sites were allocated to a variety of ROS classes ranging from urban to Roaded Natural. ROS categories are described as follows:

Roaded Modified (RM): A substantially modified natural environment characterizes the area. Resource modification and utilization practices are intended to enhance specific recreation activities and to maintain vegetative cover and soil. Sights and sounds of humans are readily evident, and the interaction between users is low. Conventional motorized access is possible including sedan, trailers, RVs, and motorbikes. There are little on-site controls of users except for some gated roads and no on-site facilities except signing at major road junctions and occasional sanitary facilities for user health protection.

Roaded Natural (RN): A predominately natural-appearing environment characterizes the area. Interaction between users may be low to moderate, but with evidence of other users prevalent. Resource modification and utilization practices are evident, but harmonize with the natural environment. Construction standards and design of facilities provide for conventional motorized use including sedans and trailers, RVs and some motor homes. Opportunity to affiliate with other users in developed sites are available, but with some chance for privacy. There is some obvious on-site control of users. The quantity and complexity of facilities provided for the comfort and convenience of user is moderate.

Semi-Primitive Non-Motorized (SPNM): A predominately natural or natural-appearing environment of moderate-to-large size characterizes area. Interaction between users is low, but there is some evidence of other users. The area is managed in such a way that minimum on-site controls and restrictions may be present, and those present are subtle. There is a high probability of experiencing solitude, closeness to nature, tranquility, self-reliance, challenge, and risk. Access and travel is non-motorized on trails, primitive roads, or cross-country. No on-site facilities except limited signing are present.

The NFS land adjacent to the State Highway 20 corridor and the existing Loup Loup transmission line is assigned to the Roaded Natural ROS. The Loup Loup Ski Area was inventoried at the time of the Forest Plan as Roaded Modified.

Bureau of Land Management - Spokane District

The BLM primarily manages the scattered tracts of land it administers within the project area for grazing and wildlife management, but dispersed recreation use does occur on the lands, mainly hiking, hunting, and off highway vehicle (OHV) use. OHV use is strictly managed by identifying areas as open and closed for OHV use.

State Agency Land

The WDNR is the single largest landowner or manager in the project area, with WDNR-managed lands accounting for about 23,300 acres or 25 percent of the total project area. WDFW also manages a relatively small amount of land in the project area, approximately 440 acres (Table 3.9-1).

The majority of WDNR lands are held in trust created by federal and state laws and managed to generate revenue for designated beneficiaries. Although the majority of WDNR lands in the area are managed for timber harvest or grazing, WDNR-managed lands within the project area include Leader Lake, which is located north of the existing Loup Loup transmission corridor. Facilities available at Leader Lake include campsites and a boat ramp (Huestis, 2004). Sweat Creek Campground located north of State Highway 20 is also within the project area.

WDFW manages land for fish and wildlife needs and fish and wildlife-related recreation uses such as hunting, wildlife watching, fishing, camping, hiking, and boating (WDFW, 2004b). WDFW requires the purchase of access decals for use of some access points along the Methow River.

Okanogan County

Okanogan County adopted the Outdoor Recreation Comprehensive Plan in April 2004. This plan used data collected via public meetings, focus groups, special committees, and surveys to create a list of priority recreation facilities and administrative actions for the county. The plan identified over a dozen trails as priority projects and added them to the County's Capital Improvement Plan. None of these trails is located within the project area. Although Okanogan County has expressed interest in developing a trail between Twisp and Okanogan (McCory, 2004), this potential route was not identified in the 2004 plan.

The 2004 Outdoor Recreation Comprehensive Plan also identified three feasibility studies that would evaluate: existing access to lakes and rivers and identify opportunities for improvements or additional access points; OHV use and opportunities for additional trails and a developed OHV park; and opportunities to construct additional facilities for equestrian uses, ranging from trails to covered arenas. These feasibility studies are countywide and, therefore, include the project area.

In addition to the 2004 Outdoor Recreation Comprehensive Plan, the adopted Comprehensive Recreation Plan for the Methow Review District is still in effect from 1990. This document identifies recreation needs, the desired future setting for different recreation opportunities, and capital improvement projects for the Methow Valley. The Plan prioritized recreation facilities in the Methow Review District, which are primarily located in the Upper Methow Valley, near Mazama, Winthrop, and Twisp. The Plan did not, however, identify any projects or opportunities within the project area.

3.10.2 Environmental Effects

This section assesses the potential effects of the proposed alternatives on recreation. The following discussion is divided into four sections. The first section discusses the evaluation criteria used to assess the potential effects of the seven alternatives. The following two sections assess the direct and indirect effects of the proposed alternatives in terms of recreation facilities and activities and recreation experience. The fourth and final section discusses the cumulative recreation effects associated with the proposed alternatives.

One of the issues raised during public scoping was the potential impact of the proposed Gold Creek Substation on recreational activities, such as rafting and fishing. The proposed substation site has been relocated to reduce potential effects identified during the public scoping period, including potential effects to rafting and fishing. The potential recreation effects associated with the new substation site are noted in the following sections, as appropriate.

The second recreation issue raised during scoping was concerned with effects to tourism, recreation, and recreation-related businesses in the Methow Valley. Potential effects to recreation and tourism are discussed in the following sections. Potential effects to recreation-related businesses are discussed in Section 3.13, Social and Economic Environment.

3.10.2.1 Evaluation Criteria

Potential impacts on recreational facilities may be divided into two general categories: functional and experiential. Functional impacts would be those that prevent, interfere with, or limit the use of a site or area for recreational purposes. Experiential impacts are those project elements that detract from the expectations of the user when recreating in a given area.

From a functional perspective, an impact would be considered significant if the proposed alternative permanently precluded the use of or access to a recreation facility or permanently precluded a particular recreational activity. Significant functional recreation impacts could also occur if construction of the proposed alternatives substantially improved access to a previously difficult to access area or provided trails suitable for OHV use in areas that were previously used for non-motorized activities.

Experiential impacts would be considered significant if they negatively affected a substantial portion of an experience and these effects were permanent. A transmission line that paralleled a trail for more than half its length could, for example, be considered a significant experiential impact.

These evaluation criteria apply to recreation and to tourism to the extent that tourism is recreation activity-driven. Popular tourist-related activities include driving for pleasure, which is discussed in Section 3.10.2.3.

3.10.2.2 Recreation Facilities and Activities

Existing recreation facilities and activities in the project area and general vicinity are discussed in the affected environment portion of this section. None of the proposed alternatives would permanently preclude the use of or access to any existing developed recreation facilities. Further, none of the proposed alternatives would permanently preclude any particular recreation activities in the project area.

Construction access would, for the most part, be via existing roads and dirt roads or tracks. A portion of these dirt roads or tracks would need some level of bladework. In most cases, road bladework would be limited to the use of a bulldozer or grader to level the travel surface in spots. In addition, limited new construction of temporary track would be required under all of the action alternatives, with the amount of disturbance ranging from 0.2 mile under Alternatives 4, 6, and 7 to 6.4 miles under Alternative 2 (Table 2-14). The limited bladework required along existing roads and tracks and the construction of short sections of temporary track is not expected to substantially affect recreation access or use in the project area. Wherever permitted by the landowner or land management agency, the PUD would install gates or other access control (fencing) to prohibit entry. Unauthorized access is discussed further in Section 2.4.3.3.

All of the developed recreation opportunities within the project area, with the exception of the Methow River access at various places along the river bank, are located on NFS or Washington State-managed lands along State Highway 20. The existing Loup Loup transmission line crosses the access roads to the Loup Loup and Sweat Creek campgrounds and Leader Lake (Table 3.10-1). Access to these facilities would, therefore, be potentially affected under Alternatives 4 through 7. The access roads to the two campgrounds and Leader Lake are also crossed by the existing access roads that would be used for construction under Alternatives 4 through 7. The main access roads to Leader Lake and the Loup Loup campground are not expected to be used for construction, but it might be necessary to close this road while the new conductors (wires) are being strung in this area. The effects to the two campgrounds and Leader Lake would, however, be localized and temporary.

Other developed facilities in the vicinity of the existing Loup Loup transmission line include the Loup Loup ski area and snow parks (Table 3.10-1), which are used during the winter and would not be affected by construction activities. There would be no change in existing routine maintenance inspection policies under Alternatives 4 through 7.

Access to the Methow River could be potentially affected by either transmission- or distribution-related construction activities that occur adjacent to the river under all of the action alternatives. These effects would be short-term and limited to those times when construction would occur in the immediate vicinity of the river access point. Construction activities are not expected to affect river recreation uses, such as fishing, whitewater rafting, kayaking, tubing, or other boating opportunities, under any of the action alternatives.

Dispersed recreation uses within the project area include the use of the existing transmission line ROW by hunters during the general deer season. The archery deer season begins in September, with the firearm season beginning mid-October. Other hunting seasons in the areas include grouse (starting September 1), upland birds (chukar, partridge, and quail) (starting early October), and spring turkey (April 15 to May 15). The construction season would extend from April 1 through November 1 under all of the action alternatives so there would be some overlap between construction activities and hunting seasons. As a result, there could be some localized and temporary disruptions to hunting in the area under all of the action alternatives. Alternatives 4 through 7 would likely have the largest potential effects because construction along the existing Loup Loup transmission line would affect those hunters that use the existing transmission line ROW. These effects would, however, be localized and temporary and most likely limited to one deer season.

None of the proposed alternatives is expected to affect dispersed winter recreation activities, such as cross country skiing or snowmobiling. Construction activities would extend from April 1 through November 1 and operation-related activities would be limited to routine inspections that would not disrupt dispersed winter recreation activities in the area.

3.10.2.3 Recreation Experience

The majority of recreation use in the project area is dispersed. All of the alternatives, with the exception of Alternative 1, No Action, would affect dispersed recreation activities in the short-run during construction activities. The presence of construction crews and equipment and the noise associated with construction activities are likely to have experiential effects on dispersed recreation uses. These effects would, however, be limited to the immediate area of construction activity and short-term in nature.

Alternative 3 would also have short-term effects on recreation activities along the Methow River, including river rafting and floating and fishing. The presence of construction crews and equipment installing new structures along the river and new conductors across the river in a number of locations would likely diminish the quality of river-based activities in the immediate vicinity. This would also be the case with construction of the new substation in the Gold Creek area, which would occur under Alternatives 2, 3, and 5. These effects would be localized and short-term in nature.

State Highway 153 and State Highway 20 west of its intersection with State Highway 153 are both considered scenic highways and the USDA Forest Service manages NFS lands along the portion of State Highway 20 east of the State Highway 153 junction for scenery and recreation. Construction activities could result in some short-term traffic delays that could have minor negative effects on the recreation experiences of people driving the affected highways for pleasure. Potential effects to the highways would be similar across the alternatives, with the exception of Alternative 6, which would involve the construction of a temporary diesel generation facility at Twisp. Fuel for this facility would be transported to the facility by truck from the Puget Sound. It is estimated that trucking diesel would require three 10,000-gallon diesel trucks of fuel daily, or four trucks daily if deliveries were only conducted during the work week. This limited increase in truck traffic for one to two construction seasons would be unlikely to affect recreational traffic in the Methow Valley.

Alternatives 2 and 5 have the potential to affect dispersed recreation experiences in the foothills and benches east of State Highway 153, but these effects are not expected to be significant because they would not affect a substantial portion of this type of use.

Alternative 3 has the greatest potential to affect visual resource-related recreation experiences in the Methow Valley because it parallels State Highway 153 for much of its length and would be visible from the highway, as well as the Methow River. Alternative 2 would also overbuild approximately 4.7 miles of existing distribution line that follows State Highway 153 and State Highway 20 south of Twisp. The presence of a new substation in the Gold Creek area under Alternatives 2, 3, and 5 could also have limited and site-specific effects on recreation river users and people driving for pleasure. The proposed substation location would be visible from State Highway 153 and, at least the top portion of the substation, would be visible from the river's surface. In addition, the new transmission line that would be constructed under Alternatives 2 and 5 would cross the Methow River to tie into the new substation. The visual impacts of the alternatives are discussed in Section 3.11.2.

Based on the limited effects that the proposed alternatives are expected to have on recreation and visual resources (see Section 3.11), none of the alternatives is expected to have a noticeable effect on tourism in the project area.

3.10.2.4 Cumulative Effects

This section considers the incremental effects of the proposed alternatives when added to other past, present, and reasonably foreseeable future actions. The effects of past and present actions on recreation resources are included in the affected environment portion of this section, which discusses current recreation facilities and activities within the project area. In the case of Alternatives 2 and 3, other past, present, and reasonably foreseeable actions include the operation and maintenance of the existing Loup Loup transmission line and the valley floor distribution circuits. As a result, all of the cumulative effects sections assess the effects of Alternative 2 and 3 in conjunction with the existing Loup Loup transmission line and the valley floor distribution circuits. Reasonably foreseeable future actions are defined for the purposes of this analysis as future actions that are planned within or in the immediate vicinity of the project area.

The reasonably foreseeable actions included in this analysis are discussed in Section 3.1. These activities include grazing allotment actions on NFS lands, grazing management on WDNR land, fuels management and timber salvage projects on NFS lands, Forest Practices on local government, state, and private forestlands, and residential and commercial development.

The three reasonably foreseeable grazing allotment actions on NFS lands are all intended to reduce grazing impacts to riparian areas and would meet all applicable Forest Plan standards and guidelines intended to protect existing natural resources. WDNR manages approximately 11 grazing permit ranges and 24 grazing leases within the immediate vicinity of the project area. The proposed action alternatives are not expected to add incrementally to any potential negative effects on recreation associated with these projects.

The four reasonably foreseeable fuels management and timber salvage projects on NFS lands would also meet all applicable Forest Plan standards and guidelines. The 16 reasonably foreseeable Forest Practices authorized by the WDNR within or in the immediate vicinity of the project area are assumed to meet all Forest Practices rules, which are, among other things, designed to specifically address cumulative effects (WAC 222-12-046). Only limited information is presently available on these projects, but it is likely that they would have short-term effects on dispersed recreation experiences in their immediate vicinity. These effects would be related to project implementation. While the proposed alternatives would likely have short-term, localized, construction-related effects on dispersed recreation activities in some areas, these effects are unlikely to add incrementally to any potential negative effects on recreation associated with these forest management projects.

There are six approved and nine pending reasonably foreseeable residential development projects, and six approved 20-acre exempt segregations in the project area (See Section 3.1). The reasonably foreseeable residential development projects in the area approved and pending approval by the

Okanogan County Planning Department are assumed to meet all local, county, and state planning regulations and ordinances. There has been considerable population growth and residential development in the Methow Valley over the past decade and this growth is expected to continue regardless of which alternative is chosen for the Methow Transmission Project. Continued growth could have the effect of reducing dispersed recreation opportunities on private lands and increasing pressure on public lands, if lands continue to be developed. Population is expected to increase in the county along with second home ownership, regardless of which alternative is selected for the Methow Transmission Project. These trends could have the effect of increasing demand for recreation uses in the Methow Valley. The proposed alternatives are not expected to affect these trends.