WHO: The U.S. Forest Service, proposes the Upper Kinzua Project; an area consisting of 27,512 acres of National Forest System (NFS) Lands, 709 acres of private land, and 26 acres of water, totaling 28,221 acres for an environmental analysis. The Bradford District Ranger is the responsible official. The decision is to whether to approve the proposed action or an alternative to the proposal, or to take no action at this time.

WHERE: The project area lies within the Allegheny National Forest (ANF). It occurs on the Bradford Ranger District (26,593 acres) and the Marienville Ranger District (1,628 acres) (Map 1). It includes land in Townships of Hamilton (Warrant 4911 and Lots 19 to 23, 123, 129 to 142); Lafayette (Warrants 2244, 2245, 3399, 3402, 3404, 3408, 3410, 3412 to 3414, 3431 to 3435, and Lots 10 to 14, and 16 to 20); Hamlin (Warrants 3076, 3077, 3084, 3086, 3089, 3091, 3093, 3097); and Wetmore (Lots 143 to 145, 181, and 182) , McKean County, Pennsylvania.

WHEN: A decision on this proposal or an alternate proposal is expected by November, 2009. Actions could be implemented five to 15 days following a potential appeal disposition. The initial tree harvesting would occur in two to five years following the decision and subsequent entries, pending tree regeneration, are anticipated in nine to 20 years from now.

WHY: The existing vegetation condition of the project area will be moved to its desired condition as described in the ANF-Land and Resource Management Plan (Forest Plan) (USDA 2007). Tree harvesting would provide an estimated 22 million board feet of wood to help meet demands for wood products implementing the Forest Plan direction. Proposed activities have been designed to minimize potential effects by meeting Forest Plan-Standards and Guidelines. Additional mitigation measures may be developed during the project design to provide further protection to water resources; sensitive soils; threatened, endangered and sensitive species and their habitats; heritage, scenery, and recreation sites, as needed. A site specific burn plan will be developed for a 26 acre prescribed burning proposal. Reserved and outstanding mineral rights will be protected.

ANF Forest Plan (FP) Direction: - Management Area (MA) objectives for this project are described briefly below (USDA-FS 2007, p. 26). Please see Map 1 for MA locations.

MA 2.1 (547 acres): Uneven-aged vegetation management and habitat for wildlife associated with shade tolerant vegetation are emphasized. Uneven-aged vegetation management provides a continuous forested scene that promotes shade and mid-tolerant species and produces quality sawtimber. Harvesting includes frequent and repeated treatments to achieve management objectives. Limited opportunities for dispersed recreation, motorized recreation, hunting, and fishing in a roaded natural recreation opportunity spectrum (ROS) setting are provided. System roads are generally closed or restricted to public traffic, except for certain seasonal openings. (FP, pp.110-112). No tree harvesting is currently proposed within this MA under the Upper Kinzua Project.

MA 2.2 (4,479 acres): Older, late structural forests that link relatively large areas of older forests (core areas) across the landscape are emphasized. Vegetation management is directed to restoring late structural forest conditions with an emphasis on sustaining forest structure and forest continuity. It provides habitat for species with viability concerns, remote and interior

species with high sensitivity to disturbance, and protection of rock/boulder outcroppings, seasonal nesting and cover habitat. Modified vegetation management treatments are proposed to emphasize late-structural conditions. Recreation opportunities are in Roaded Natural settings. Most roads are closed or restricted and new system road construction is limited to existing road corridors. Trails and facilities support a roaded natural ROS setting, and new motorized trails will be minimized. Parking areas will be located on the periphery of the MA. (FP, pp.109-112).

MA 3.0 (22,397 acres): Even-aged management to provide a mixed forest that is a mix of predominantly shade intolerant and mid-tolerant hardwood stands of various ages and associated understories, and habitat for a diversity of plant and animal species is emphasized. It provides for a sustained yield of high-value species and high-quality timber to contribute to the economy. The majority of commercial timber harvest proposed occurs within this MA. Treatments are directed to balance age class distribution and promote forest health.

Wildlife management emphasizes early structural species, including white-tailed deer, and squirrel. Specialized habitats and inclusions within MA 3.0 receive treatments to benefit game and non-game species, and species with viability concerns. Trails support a Roaded Natural ROS setting. Road construction and maintenance occur in this MA. (FP, pp. 113-116).

MA 7.1 (62 acres): This MA is managed for large-scale developed recreation areas (Red Bridge) in a rural setting. Vegetation management is limited and is used primarily to support recreational and scenic objectives. (FP, pp.134-137). Small scale treatments would maintain or improve the health of pine species.

Purpose and Need: The following list describes the purpose and needs for this project.

1. Develop and enhance the seedling, shrub, and herbaceous diversity to improve structural conditions, (FP, pp. 14, 19, A-1, A-2, A-14).
2. Provide a sustainable flow of commercial timber products that will: contribute to the local and regional economy, contribute to the annual Forest-wide allowable sale quantity (ASQ), and maintain ten to12 percent of MA 3.0 in early structural habitat (0 to 20 years old) over time (FP, pp. 8, 14, 113).
3. Manage late structural stand development and conditions within MAs 2.1, 2.2, and 3.0 of the project area (FP, pp. 14, 19, 66, 106, 109, 113).
4. Manage both existing and future forest health and pests issues (FP, pp. 15, 93, 109, 113).
5. Decommission legacy (old Pennzoil fields), oil, gas, and mineral (OGM) roads and un-needed National Forest System Roads (FP, pp. 36, 98).
6. Provide a safe, efficient and economical transportation system that is responsive to public and administrative needs, while having minimal adverse effects on the natural forest ecosystem (FP, p.16).
7. Provide diverse and specialized habitats across the landscape to increase populations of species with viability concerns (FP, p.20).
8. Provide optimum and suitable habitat for Indiana bats on the ANF (FP, p. 20).

9. Create early and late structural habitat (FP, p.14).

10. Enhance both game and non-game species wildlife habitat to provide desired cover and forage conditions (FP, p. 20).

11. Provide wildlife habitat connectivity, interior habitat, and remote habitat (FP, p.14).
12. Limit the further introduction and/or spread of non-native invasive plants (NNIP) and conserve forest resources in a manner that presents the least hazard to humans and maintains or restores forest resources (FP, p.13).
13. Manage riparian areas in the project area: Provide riparian areas that have dynamic, multi-age, and multi-layered vegetation communities that promote floodplain structure, stream channel stability, aquatic diversity, and natural recruitment of large woody debris and other sources of organics (FP, p.14).
14. Restore compositional and/or structural diversity of riparian corridors on 50 to 100 acres annually (FP, p. 19).
15. Provide for 35-65% pool and slow-water habitats in streams within the project area for brook trout and other headwater stream fishes (FP, p.11).
16. Provide a long-term, sustainable supply of large wood from riparian corridors to streams for aquatic habitat diversity; with an objective of 75-380 pieces per mile of stream (FP, p.11).
17. Reduce existing sedimentation and maintain, restore, or improve soil quality, productivity, and function. Manage soil disturbance from management activities such that they do not result in long-term loss of inherent soil quality and function. (FP, p. 14).
18. Provide fish passage at several crossings that currently prevent or inhibit movement of fish upstream (FP, p. 11).
19. Manage dispersed recreation sites consistent with the appropriate ROS development level and maintain or exceed the scenic integrity level (FP, pp. 18, 19).
20. Provide additional/improved vehicle parking to better access fly fishing opportunities along Kinzua Creek “delayed harvest area” (FP, p. 18).
21. Maintain existing scenic vistas and construct an additional vista (SR 219) (FP, p.19).

WHAT: The following tables provide a summary of what treatments and activities are being proposed for the following: silviculture, transportation, wildlife, botany, hydrology, soils, scenery, and recreation. Each table shows: the location, the action, a description of what the treatment is, and the number of acres or miles affected, or the count of items to be accomplished. MAs for the proposed silvicultural treatments are included.

The project area is divided into geographic subdivisions known as compartments and then further divided into smaller units known as stands. Locations are provided on the attached corresponding maps.

Table 1. Proposed silvicultural treatments (Map 2).

Proposed Silvicultural Treatments	MA	Compartment/Stand(s)	Total Acres
Two-aged harvesting to meet wildlife objectives	3.0	481/37	41
Accelerate mature forest conditions, non- commercial thinning for late structural features.	2.2	458/02,13, 15, 20, 36	89
Aspen regeneration, through even-age management, creating stands beneficial for wildlife.	3.0	459/32,33,36; 462/41, 42; 476/47	31
Delayed removal, overstory trees are removed, (except for reserve trees), to promote seedling growth.	3.0	457/41; 459/15; 460/06, 21,42, 58, 67; 462/16, 31; 474/11, 36, 39, 41; 480/20	283
Expand wildlife opening	3.0	462/42; 480/14,15	26
Mast Release, non-commercial release of oak and hickory to promote regeneration and mast production.	3.0	457/04	56
Wildlife opening restoration (release, doze, and seed)	3.0, 2.2- (4 ac.)	463/30; 474/22; 478/16; 483/07; 483/09; 484/10, 42; 485/46; 460/40;481/02	42
Restore understory mature forest conditions, group selection to promote tree regeneration and late structural features	2.2	458/02, 04, 14	89
Shelterwood seed cut -removal, two entry sequences where trees will be regenerated.	3.0	457/14, 19; 459/05, 06, 20, 21, 23; 460/08, 29, 66; 461/53, 54; 462/04, 19, 27; 463/06; 472/17, 37, 473/11, 477/38; 478/03, 22; 480/13, 72; 481/12, 33, 38, 45; 482/34, 37, 46; 483/18; 805/14; 809/14; 458/26, 19, 27, 29, 28, 09; 459/43,17,38; 460/10,54,53, 55,13; 461033/062; 463/07, 44, 24, 42; 472/04,06; 462/05	1,201
Thinning, relieve overcrowding to promote tree vigor, growth, and health	3.0	457/06, 07, 25, 31; 458/34; 474/16,43; 480/09, 38, 68; 803/01; 805/36, 66; 806/03, 04, 06, 09; 808/06; 809/01, 12, 21, 23, 57	409
Non- commercial thinning, relieve hemlock tree overcrowding to promote tree vigor, growth, & health	2.2	478/07; 480/47, 51	57
Uneven-aged management, a single tree selection, featuring sugar maple, yellow birch and other species.	3.0	480/44, 70	79
Vista, Cut trees to expand the scenic view from SR 219	2.2	475/04,08	6

Table 2. Proposed reforestation treatments (Map 2).

Proposed Reforestation Treatments	Compartment/Stand(s)	Total Acres
Planting, reforestation in needed areas	457/06, 07, 25; 458/02, 04,14,17; 460/30,61; 463/30, 472/01, 17; 474003, 05, 06, 10; 479021; 481/02; 484/42; 485/28, 46; 805014; 809/11,13, 14,16	441
Herbicide, control of undesired ground and some mid-story vegetation that interferes with the tree regeneration process. Acres of herbicide application amounts are listed at the upper limit required for regeneration success; actual acres treated will likely be less.	457/06, 07, 25, 14 ,19, 41; 458/02, 04, 14, 17, 37; 459/05, 06, 15, 20, 21, 23, 32, 33, 36; 460/06, 08, 29, 30, 42, 58, 66; 461/25, 53, 54; 462/04, 05, 16, 19, 27, 31, 41, 42, 463/06, 30, 38; 472/01, 17, 37; 473/11; 474/03, 05, 6, 10, 22, 39, 41, 54; 477/38; 478/03, 16, 22; 479/21; 480/13, 15, 18, 20, 30, 44, 70, 72; 481/02, 12, 14, 33, 37, 38, 45; 482/34, 37, 46; 483/07, 09, 18, 26; 484/10, 42; 485/28, 46; 805/14; 809/11, 13, 14, 16; 458/ 09, 19, 26, 27, 28, 29; 459/43, 38, 17, 460/10, 54, 53, 21, 67, 30, 61, 55, 13; 461/33, 62; 463/07, 44, 24, 42 472/04, 06; 474/11, 36	2,267
Site preparation, mid-story beech, striped maple or other interfering woody stems (approximately five to 30 feet tall) will be hand or mechanically cut to prevent interference of new, diverse tree seedling growth and development.	457/06, 07, 14, 19, 41; 458/02, 04, 09, 14, 17,28, 27,29, 26, 19; 459/43, 17, 38, 05, 06, 15, 20, 21, 23; 460/06, 08, 10, 13, 29, 21, 54, 53, 67, 55, 42, 58, 66; 461/33, 62, 25, 53, 54; 462/04, 05, 16, 19, 27, 31; 463/06, 38, 07, 30, 44, 24, 42; 472/04, 06,17, 37; 473/11; 474/11, 36, 39, 41, 54; 477/38; 478/03, 22; 479/21; 480/13, 20, 44, 70, 72; 481/12, 33, 37, 38, 45; 482/34, 37, 46; 483/18, 26; 805/14; 809/14	1,910
Fencing, deer exclusion fences will be installed to promote tree seedling growth and understory diversity by preventing deer from browsing on desired seedlings.	458/17; 481/02; 480/44, 70; 484/42; 485/46; 805/14; 809/11, 13, 14, 16	173
Soil Scarification, soils scarified by mechanical tools to promote the acorn germination.	457/06, 07; 459/32, 33,36; 462/41	56
Controlled burn, non-commercial pile and burn slash following thinning in red pine stands to reduce fuel loading and manage insect populations.	457/06, 07, 25	26

Proposed Reforestation Treatments	Compartment/Stand(s)	Total Acres
Release to promote diverse saplings and less common tree species by manually removing small, mid-story stems that may interfere with tree seedling and sapling growth and development in areas between 5 and 15 years old.	457/04, 06, 07, 14, 19, 25, 41; 458/02, 27, 28,09, 29, 26, 19, 04, 14, 17, 20, 37; 459/43,17, 38, 05, 06, 15, 20, 21, 23, 32, 33, 36; 460/06, 08, 29, 42, 58, 66, 21, 67, 55, 13, 10, 54, 53; 461/33, 62, 25, 53, 54; 462/04, 05, 16, 19, 27, 31, 41; 463/07, 06, 38, 44, 24, 42; 464/32; 472/ 01, 17, 37, 04, 06; 473/11; 474/11, 36, 39, 41; 477/38; 478/03, 22; 480/13, 18, 20, 30, 44, 62, 70, 72; 481/12, 33, 37, 38, 40, 45; 482/34, 37, 46; 483/10, 18, 26; 485/28; 805/14; 809/11, 13, 14, 16	2,162

Transportation: The project area contains 360 miles of roads [State and Township; (16 mi.), National Forest System (NFS) (119 mi.); authorized (36 CFR212.1) (200 mi.) and unauthorized (36 CFR212.1) (25 mi.)]. The NFS roads are managed for public use as follows: 48 mi. are open year around, 34 mi. are seasonally restricted, and 37 mi. are closed year around. About 37 mi. are mixed use roads and trails. The project area has an extensive development of private OGM activities. Non-system roads related to OGM development have been determined as the greatest likelihood of spreading sediment. Many of the stream crossings do not have limestone surfacing on approaches. Road maintenance and decommissioning will reduce sediment delivery to streams.

Table 3. Proposed transportation treatments (Map 2).

Proposed Road Treatments	Location	Miles
Construction-new corridor	FR144B, FR456 Extension	0.2
	FR144B [Right of way (ROW) needed]	0.1
Construction-existing corridor	FR477C, FR150B Extension, FR320A, FR464A Extension, FR150D, FR318 Ext., FR142Ba, FR456H, FR456G Ext.	6.8
	FR144 Extension, FR144B (ROW Needed)	0.4
Reconstruction-Forest System Roads (FSR)	FR456[1]	0.8
Decommission - FSR	FR315, FR317A, FR456[1]	1.8
Decommission - Storm proof FSR and change to operation maintenance level 1[3]	FR187B	0.4
Remove FSR from the system	FR301A (on private)	0.7
Decommission – non-system roads	Warrant/Lot Nos. 3413/20, 2245,2244, 3084, 3399, 134	4.7
Decommission - road ripping (old Pennzoil Fields)	Warrant Nos. 3077, 3084, 3085, 3089	13.4

Proposed Road Treatments	Location	Miles
Mitigate effects or decommission authorized roads[2]	Warrant/Lot Nos. 134, 136, 137, 143, 3121, 3077, 2245, 3431, 3402, 4916, 4915, 3404, 3408, 3433, 3410, 3412/11, 3412/12, 3412/14, 3412/13, 3413/18, 3413/19, 3413/20	19
Closed to restricted	FR318, FR318 ext.	2
Closure of unauthorized off-road vehicle tracks	Segments in Warrants/Lots: 4911, 3413/20, 3413/19, 3413/18, 3413/17, 3413/16, 3412/13, 3412/14, 3412/12, 3412/11, 3412/10	9
Improved road surfacing	Stream approaches and water concerns	15
Improve road access to all ponds	Duck ponds (wildlife)	1
		No.
Install gate	FR 318 Ext. at intersection w/NS27287, Hunter disability permit road; Duck ponds, last OGM access, south (wildlife)	2
Remove gate	Duck ponds (wildlife), existing gate at propagation pond	1
Re-designate as hunter disabled permit road	FR 318 (wildlife)	1
Harden two car parking area	Duck ponds, (wildlife), North of new gate (1); North of FR 150 (adjacent to the pond accesses) (2)	3
Proposed Pit Treatments	**Compartment/Stand**	**Acres**
Explore area - develop pit (9)	462/30, 465/14; 472/35, 475/5; 480/35; 483/14; 485/28; 805/9	18
Expand existing pit (3)	457/37, 462/12, 474/7	6
Expand existing pit - reclaim old development (17)	459/1, 460/45, 52; 461/38, 42, 43; 462/27, 35; 463/48; 464/31; 472/7; 474/43; 479/22; 480/8, 25, 64; 481/44; 484/21; 485/55	17
Reclaim pit (5)	457/38; 460/ 49; 461/38; 462/36, 463/39	17

[1]Road may be reconstructed or decommissioned depending on improvements needed
[2] Work with operators to correct problems or decommission non-system roads related to OGM
[3] High use roads

Table 4. Proposed wildlife habitat improvements (Map 3)

Proposed Wildlife Treatments	Compartment/Stand(s)	Total Acres
Plow & seed	457/34, 35, 37, 458/38, 460/40, 48, 461/48, 462/41, 42, 49, 474/44, 50, 51, 476/16, 480/59, 481/14, 15, 483/07, 484/25, 42	63
Plant cool season grasses	457/34, 458/38	6
Plant under the forest canopy (Under-plant) mast release stand	457/04	25

Proposed Wildlife Treatments	Compartment/Stand(s)	Total Acres
Under-plant conifer clumps, promote wildlife habitat	457/41 West of FR 142C, South end of stand	15
Under-plant RUMFC treatment stands, restore understory for wildlife habitat and promote forest sustainability	457/14,19,41; 458/02, 04, 27, 29, 28, 09, 14; 459/05, /06, 20, 21, 23, 43; 460/08, 29, 53, 54, 55, 13, 66; 461/33, 62, 54, 04; 462/05, 19; 463/06, 07,44, 24, 42; 472/04, 17, 37; 473/11; 478/22; 481/12, 33; 482/34, 37, 46; 483/18	461
Under-plant AMFC treatment stands, restore understory for wildlife habitat and promote forest sustainability	458/02,13,15,20	58
Mowing, promote warm and cool season grasses for wildlife forage & cover	457/34,36,35,37,54; 458/19, 20; 459/32[1]; 460/40, 48; 461/20,30,34; 462/41,42,43,49; 463/30; 474/22, 44,50,51; 476/16; 478/16; 480/25,59; 481/02,10,14,15,16; 483/07,09; 483/46; 484/10, 25,42; 485/22[2],29,30,46,51,52;809/15[2],58[2]	205
Restore & maintain opening	457/34,35,54; 458/19,38; 461/34,48; 462/41,42,49; 463/30; 474/44,50,51; 478/16; 480/59; 481/16; 483/07,09,46	51
Opening release , edge encroachment	457/36,37,38; 458/2,38; 459/32[1]; 460/48; 461/30,34,48; 463/30; 464/1,17; 476/16;474/22,44; 478/16; 480/23,25,59; 481/14,15,16; 484/10	79
Create opening, Increase diversity of wildlife habitat	460/40; 462/42; 478/16,481/10,15; 484/42; 485/46	24
Wetland enhancement, Improve wildlife water availability and promote amphibian habitat Install 20x20 potholes within ponds	476/15, 23, 47; 481/15; 485[2]/22,29,30,51,52; 809[2]/15,58	26
Plant shrubs/fruit/conifer trees	457/34, 36, 37; 460/40, 48; 461/20, 30, 34, 48; 462/36, 41, 42, 43, 49; 464/17 474/16, 44, 50, 51, 16 480/23, 25, 59; 481/02, 14, 15, 16; 482/13, 15; 483/07; 484/10; 25; 484/42, 59; 485[2]/22, 29, 30, 51, 52; 809/15, 58	103
Fence cribs, small area fences to protect wildlife plantings from deer browse	457/34,35,37; 460/40,48; 461/20,30,34,48; 462/41,42,43,49; 463/30; 464/17,22; 474/22,44,50,51; 476/16; 478/16; 480/23, 25, 59; 481/02, 10, 12,14,16; 483/07,09; 484/10,25,42; 485/29,30,46,51,52; 485[2]/22; 809[2]/15,58	116
Remove old fence cribs, opening restoration	457/35	2

Proposed Wildlife Treatments	Compartment/Stand(s)	Total Acres
Herbicide, cover and forage conditions will be improved by removing interfering vegetation and noxious weeds.	457/35; 458/38; 460/40,48; 461/48; 462/41,42, 49; 463/30; 464/17,22; 474/22,44,51; 476/16; 480/59; 481/14,15; 483/07,09,46; 484/10,25,42; 485/46;	75
Aspen regeneration, early age class of trees	459/32[1],33,36; 462/41,42; 476/47	31
Prune & release fruit trees, restore apple trees to promote apple production.	457/35, 36, 40; 458/16,19, 20, 38, 43; 459/22, 32; 460/22, 40, 48; 461/20,30, 34, 36; 462/10, 17, 36, 41; 464/17, 22,; 473/07, 13; 474/22, 28, 29, 31; 476/13,16,22; 478/16; 480/59; 481/02; 482/13, 15; 483/07; 484/10; 484/42	129
Thin & release butternut trees, promote a Federally Listed Threatened Specie	476/29	1
Seed orchard, plant butternut or beech seeds or seedlings	481/10, 484/42, 485/46	6
Prescribed burn & plant warm season grasses, promote growth of warm season grasses for wildlife nesting, forage & cover	459/30,32	4
Plant conifer groups, wildlife nesting, roosting & cover	Non-System road entrances C484, C485 proposed decommissioning. FR 278A, 187B, 314 or 317 intersections (old Pennzoil field)	13
Girdle trees, create snags for wildlife roosting	484/42;485/29[2], 46;	17
Under-plant conifer	South end of 457/41, west of FR 142C	15
		No.
Construct vernal pool, improve wildlife water availability and promote amphibian habitat	457/34, 460/40, 462/36, 484/10	5
Install nest boxes, nesting/roosting habitat for the Northern flying squirrel, bluebirds, and wood ducks, and bats	457/34; 459/22; 460/48; 461/27; 462/41, 42, 43, 49; 464/17; 474/16, 50, 51; 476/12; 478/16; 481/14, 16; 485/22, 29[2], 51, 52; 809[2]/15, 58, & along streams	128

[1]Timber doodle flats wildlife interpretive area
[2]Duck ponds

The Forest Plan goals and objectives for non-native invasive plants (NNIP) is to develop and implement a proactive, integrated plant management program to conserve forest resources in a manner that presents the least hazard to humans and maintains or restores forest resources; and complete 300 to 600 acres of invasive plant treatment annually. Herbicide use is permitted in all project area MAs as a NNIP treatment (FP pp. 13, 18, 35).

Table 5. Proposed non-native invasive plant removal (Map 3).

Invasive Plant Treatments	Locations	Acres
Remove invasive plants and reestablish native plants to promote forest health and native plant diversity. Manual, mechanical and/or herbicide of NNIP. In select areas of NNIP treatments, native species will be planted by seed or plants to establish desired vegetation. Planting areas and species will be determined after treatment of NNIP has been conducted and determined to be sufficient.	Red Bridge recreation area, Timberdoodle Flats wildlife area, road corridors, riparian corridors (Kinzua Creek, Pine, Root, Markham, and Meade Runs, respectively).	15

Stream habitat monitoring in the project area shows streams are lacking habitat diversity. Pools and slow water habitat are present but are not quality due to a lack of cover and small pool depth. Also, large wood monitoring on several streams show streams lack sufficient large wood to create quality pools, slow flood flows, or create channel diversity.

Table 6. Proposed hydrology treatments (Map 3).

Hydrology Treatments	Compartment/Stand	Amount
Increase the vegetation diversity and accelerate tree growth, and to speed delivery of large wood to streams. Non commercial thinning and/or girdle 27 acres of moderate-high to high stocked stands in riparian areas (mostly hemlock treatments).	480/51- Within proposed vegetation treatment acres. 1,450’ x 100’; 478/07- Other side of stream from 480/51. 1,450’ x 100’; 481/35- 2,600’ x 100’; 472/06- Within proposed silvicultural treatment, 3,450’ x 100’; 809/63- 2,100’ x 200’	30 acres
Complete one to two miles of stream restoration or enhancement for native and desired non-native species where suitable habitat is lacking, annually (FP, p. 20). Large wood additions; Fell 50 to 100 trees per mile into streams and onto floodplains to improve aquatic habitat diversity, trap sediment, and slow flood flows. Trees will be cut at least ten feet from the channel. These treatments will thin some trees out of moderate to high stocked stands.	Camp Run, Chappel Fork, Markham Run, Meade Run, Pine Run, Root Run, Thundershower Run, Windfall Run, and a tributary to Wintergreen Run	Fell 50 to 100 trees per mile, 21 miles
Add in-stream log structures to help stabilize eroding banks and improve aquatic habitat. Structures would be constructed using logs, rocks, large equipment and hand labor [PA Fish and Boat Commission 2007, Habitat Improvement for Trout Streams].	Kinzua Creek	6 miles

Table 7. Proposed recreation treatments to improve Kinzua Creek fishing access (Map 3).

Recreation Treatments	Location
Widen area for three vehicles to park along the road; vehicles would be off of the road.	SR 3006, 0.6 mi. to .85 mi. from SR 219, North side, just past guardrail from the area along existing road
Remove pipe across the creek restore site, decommission road, harden parking site.	SR 3006, 0.9 mi. from SR 219, just before the bridge, after the guard rail, North side, existing pull off with a road that leads to the creek.
Develop and harden parking area for four vehicles, signing.	SR 3006, At 1.0 mi. from SR 219, South side, OGM road, opening next to a well
Block, harden for one vehicle parking and restore site.	SR 3006,1.4 mi. from SR 219, North side where the road access nearly reaches the Creek
Harden pull off for one vehicle.	SR 3006, 1.5 mi. from SR 219, North side
Improve vehicle parking for the first 100 feet, with a tear drop design to allow a turn around. Install barriers and rehabilitate remaining site.	SR 3006, 1.7 mi. from SR 219, North side, just past the guard rails. Bridge abutments on the creek, large dispersed impacted camp site with side channels and wetlands.
Harden and expand pull off for one or possibly two vehicles.	SR 3006, 1.8 mi. from SR 219, North side,
Harden existing site.	SR 3006, 2.0 mi. from SR 219, North side
Improve and define a circular access road (limestone) around the wetland and install boulders to protect the wetland, harden dispersed camp sites, on the perimeter loop to mitigate existing resource damage.	SR 3006, 2.3 mi. from SR 219, North side, old gate posts, goes back to a muddy high impact area, ball field (a small wetland sits in the middle of it).
Stabilize, harden, and provide improved access at two sites and protect an eroded stream bank	Compartment 479/ Stand 6, Dispersed campsites on Kinzua Creek (hydrology).

References

USDA Forest Service. 2007. Allegheny National Forest Land and Resource Management Plan. 296 pp.