Eurasian Watermilfoil / Curlyleaf Pondweed Research and Implementation Project Environmental Assessment Decision Notice

Montana Department of Agriculture
July 19, 2010

Proposed Action

The Montana Department of Agriculture, through its Noxious Weed Trust Fund Grant Program, is proposing to fund a dye and herbicide research trial and implementation project on Eurasian watermilfoil and Curlyleaf pondweed in Noxon Rapids Reservoir and Cabinet Gorge Reservoirs in Sanders County, Montana. The Project has been proposed by the Eurasian Watermilfoil Task Force (EWMTF), Sanders County Weed District and Avista Utilities to continue to study the feasibility of using herbicides as a management tool for controlling aquatic weeds in Noxon Rapids and Cabinet Gorge Reservoirs as part of an Integrated Weed Management approach. The proposed action alternative would allow Avista Utilities, the Sanders County Weed District, and the EWMTF to continue with herbicide research within Noxon Rapids Reservoir and consequently, implement operational herbicide weed control as a portion of an integrated weed management approach within both Noxon Rapids and Cabinet Gorge Reservoirs. The proposed research, implementation and maintenance would occur over the next ten years. Research within Noxon Rapids Reservoir is proposed to continue during the summer of 2010, and research could potentially be required during the summer of 2011. Implementation of herbicide treatments within known Eurasian watermilfoil (EWM) and/or Curleyleaf pondweed (CLP) beds would occur within the three to four years following the completion of research. The Sanders County Weed District and the EWMTF received a Montana Noxious Weed Trust Fund Grant from the Montana Department of Agriculture and a Montana Department of Natural & Resources Conservation Reclamation and Development Grant to conduct a dye and herbicide treatment plot study.

This research project follows up on a similar project conducted in 2009 and is designed to determine the concentration and plot size required to effectively remove the infestation with herbicides. The necessary funds have been granted to the applicants to conduct dye studies to determine the potential behavior of applied herbicides and to treat the research plots with herbicides. The project site is located on Noxon Rapids and Cabinet Gorge Reservoirs, which are part of the Clark Fork River watershed.

Public Involvement Process and Comments

Public input regarding the proposed alternatives was encouraged through the public scoping process and public comment regarding the draft Environmental Assessment (EA). The official scoping comment period occurred from February 16, 2010 through March 22, 2010. Two public scoping meetings were held on March 11, 2010 in Thompson Falls and Noxon, MT. A total of 59 comment forms and letters were received during the public scoping periods. The comments were used to direct the EA process in alternative development and analyzing the effects of the alternatives.

The draft Environmental Assessment for the proposed research project was completed and made available for public review on May 28, 2010. Public notice of availability of this EA was provided by direct mailing to the project mailing list, a notice in the Sanders County Ledger and Missoulian, a posting on the Sanders County, Montana Department of Agriculture and Noxon Cabinet Shoreline Coalition web sites at sanderscounty.mt.gov, agr.mt.gov and ncshorelines.com, respectively. Copies of the EA were made available to the public at the Sanders County Extension office and Montana Department of Agriculture. The public notice period began May 29, 2009 and continued for fourteen (14) days following the posting on the Sanders County website. Comments were accepted until 5 PM on June 16, 2010.

Three comment letters were received during the comment period. Copies of the comment letters and responses are attached.

Final Environmental Assessment

Modifications to the draft Environmental Assessment will not be necessary based on the public comment as the public comments were adequately addressed within this document and its attachments. The draft Environmental Assessment along with this decision notice will serve as the final document for this proposal.

Decision

Based on the Environmental Assessment, public comment, and the need to research methods to control and eradicate Eurasian watermilfoil and Curlyleaf pondweed from Montana waterways, it is my decision to proceed with the proposed research and implementation project. I find there to be no significant impacts on the human and physical environments associated with this project. Therefore, I conclude that an Environmental Impact Statement is not required.

Signature

Donna Lyse for Greg Ames — July 19, 2010

Gregory H. Ames — Date

Administrator

Eurasian Watermilfoil / Curlyleaf Pondweed Research and Implementation Project: Response to EA Comments

Montana Fish, Wildlife & Parks

Fisheries Division
P.O. Box 200701
Helena, MT 59620-0701
(406) 444-2449
Fax: 406-444-4952
Date: June 15, 2010

Sanders County, c/o John Halpop
2504 Tradewinds Way, Suite B,
Thompson Falls MT 59873

RE: EA-Eurasian watermilfoil/ curlyleaf pondweed research and implementation project.

Dear: Mr. Halpop

Montana Fish, Wildlife & Parks (FWP) appreciates Sanders County's continued work to find an effective control for Eurasian watermilfoil and Curlyleaf pondweed in Noxon Rapids and Cabinet Gorge Reservoirs. The County's openness and development of a task force to involve all interested parties that have a stake in environmental actions within the Lower Clark Fork Drainage, is commendable. FWP has a number of comments on the draft Environmental Assessment (EA).

Within the FWP comments on the scoping document, dated March 22, it was stated that "FWP believes it is imperative to define the long term goal of the project within the Environmental Assessment (EA). A common understanding of the goal will assist the county in its ability to measure the effectiveness of the project and the overall scope and duration of efforts that may be needed to reach that goal." Overall FWP was pleased with the level of detail that was incorporated into the EA. There was however no information on how success will be measured, or what criteria will be used to determine when to move from the research phase into the implementation or maintenance phase. Adding some form of criteria for measuring success or progress will greatly assist the Technical Advisory Committee.

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The EA is very broad in scope allowing for a fairly broad application of herbicides over an extended period of time. FWP understands the advantages of doing one 10 year EA for the three phases of research, implementation and maintenance. To allow for adequate review, FWP would have preferred to have seen three EA's one for each phase of the project. However, FWP was encouraged to see that review has been built into the process and will be carried out by the Technical Advisory Committee. Having specific goals and a means to measure success of the project will aid the committee in their annual deliberations. The committee will be essential to

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Response to Montana Fish, Wildlife and Parks comments:

1) Vegetation monitoring has been occurring annually since 2008. As stated in Chapter 3 of the Environmental Assessment (EA), monitoring evaluates herbicide treatment effectiveness and the impacts of treatments on native vegetation. The objective of the research phase of the project is to determine water exchange rates and maximize treatment efficacy. Treatments are considered successful when herbicide treatments achieve significant control of weeds while allowing native vegetation to persist. Results of monitoring are reviewed by the Task Force and the Technical Advisory Committee. The Task Force and Advisory Committee determine when the objectives of the research phase are complete and the project is ready to move to the operational treatment phase.

2) Comment noted.

Eurasian Watermilfoil / Curlyleaf Pondweed Research and Implementation Project: Response to EA Comments

evaluating activities for each year and to establish goals for the upcoming season. FWP would like to add the following members to the committee: the FWP Pollution Control Biologist (currently Trevor Selch, Helena), the FWP local area Biologist (currently Jon Hanson, Thompson Falls), and the FWP Aquatic Nuisance Species Coordinator (currently Eileen Ryce, Helena). Further, it is recommended that none of the researchers directly involved with the project be members of the committee to maintain unbiased review and impartiality. The EA as currently written is too broad when it includes the use of "other aquatic herbicides than those listed" even when used following the approved label. FWP recommends that this broad allowance for herbicide use be removed and that an additional EA should be completed for any additional herbicide being considered for use that is not specifically listed within the EA.

One of the areas of success/failure of the project that should be considered by the Technical Review Committee is fish habitat. Within the EA it is discussed that the significant reduction in vegetation stands will likely negatively impact fish habitat and that adult fish will disperse when weeds die back, especially largemouth bass. There was no discussion about impacts to juvenile or forage fish habitat. It is likely that the impacts will be greater on juvenile/forage fish than on adult fish, particularly if the vegetation dies shortly after hatch. The juvenile fish do not have the same ability as the adults to disperse and find other suitable habitat. As part of measuring the success of the project it is suggested that impacts to fish habitat be monitored and that this be evaluated annually by the review committee. Timing of the treatments may have to be varied to avoid or at least minimize impacts to fish habitat. A possible measure of impacts/success could be the re-colonization of treated areas with native vegetation. There was very limited discussion in the EA on the post-treatment vegetation colonization. It is suggested that if native plants are not favored during the re-colonization phase that methods be put in place to encourage them to re-colonize the treated areas. The permanent loss of vegetation or the replacement with other non-native plants could significantly impact the quality and amount of fish habitat available within the reservoirs.

Within the EA it refers to the fishery in Noxon Rapids and Cabinet Gorge reservoirs as "focused on fish stocking and hatcheries to support sports fishery". The current fish management does not focus on fish stocking and hatchery support. Fish management in the reservoirs is focused on restoring native bull trout and westslope cutthroat trout, while maintaining a sport fishery for anglers. Popular species within the reservoirs that create a quality angling experience include large and smallmouth bass, yellow perch and northern pike. Noxon Rapids has not been stocked with hatchery fish since 1997 and Cabinet Gorge since 1994; both reservoirs are reliant on wild fish reproduction. Impacts to juvenile fish rearing habitat could substantially impact the sport fishery because it is solely reliant on wild fish reproduction. FWP requests that the plan be revised to reflect this significant difference.

The EA states that some of the herbicides that will be used will require fishing restrictions to protect public health. The EA states that marker buoys will be used to inform the public of restrictions. Any fishing restrictions made to either Noxon Rapids or Cabinet Gorge must be done in consultation with FWP and with changes to fishing regulations that will require FWP Commission action. FWP requests an 8 week advance notice of any potentially required fishing restrictions; this will allow time for a public comment period and two hearings by the FWP Commission. If Sanders County and MDA believe that fishing restrictions are going to be

3) The Technical Advisory Group is currently being developed. A FWP representative will be invited to be a member of the Technical Advisory Group. The FWP representative would act as the FWP liaison and would be responsible for disseminating information within FWP and expressing FWP opinions regarding the project.
4) The proposed action as described in the EA states that "only those herbicides approved and registered by the EPA and the Montana Department of Agriculture would be used." The EPA registration process requires and reviews an extensive set of scientifically sound (80-120 chemistry, toxicology, exposure, and environmental) studies for each herbicide prior to marketing and use. EPA scientists review these studies to determine whether or not the herbicide, when used according to the herbicide's use directions and restrictions, would cause potential adverse effects to humans or the environment, including wildlife plants and animals. Only those herbicides determined to be safe to humans and the environment are allowed to be registered. By committing to use only EPA registered herbicides,

the project would be required to use only those herbicides proven to be safe. Therefore, it is not necessary to complete an EA for a change in herbicide selection.

5) Comment noted. The Technical Advisory Committee will be evaluating impacts to fish habitat and will be considering input from the FWP.
6) Pages 4-18 to 4-21 of the EA include a qualitative discussion of the impacts of the alternatives to fish throughout their life cycle.
7) Potential fish habitat that would be altered as a result of the Proposed Action includes those areas that may be subject to weed infestations (vegetated areas with a depth of less than 30 feet). Vegetation monitoring has been occurring within Noxon Rapids Reservoir since 2008 and would continue to occur on an annual basis as a component of the Proposed Action. Herbicide treatments would not eliminate all vegetation, hence, some habitat would remain in treated areas. As discussed in Chapter 3 of the EA, annual monitoring of vegetation which would represent fish habitat would evaluate the effectiveness of the herbicide treatments and the response of native vegetation. As such, vegetation composition would be monitored annually and results would be reviewed by the Task Force and Technical Advisory Group.
8) As discussed in the response to comment 7, annual vegetation monitoring would evaluate the effectiveness of herbicide treatments and the response of native vegetation to treatments. Recolonization would be considered during review of monitoring results.
9) Recolonization of native vegetation is expected to be successful. In the event that recolonization does not occur within treated plots, the Task Force and Technical Advisory Group would address methods to encourage establishment of native vegetation.
10) Comment noted.
11) Comment noted.
12) Fishing restrictions are not required for the currently proposed herbicides at the proposed rates. FWP will be notified 8 weeks prior to any fishing restrictions, if new herbicides are used that warrant a restriction.

13 required, FWP requests that the County or MDA inform the FWP ANS Coordinator (Eileen Ryce) with specifics on locations and timing for the restrictions. FWP recommends that marker buoys be used simply to inform recreationists of the recent application of herbicides in the area.

The EA explains how the herbicide treatments will be used as part of an integrated weed management (IWM) approach. However, no alternatives are discussed with the exception of the no action alternative, and no other control measures are discussed other than herbicide treatments and the use of bottom barriers. FWP believes that other control measures including the possible use of dam draw downs to control the noxious weeds, bio-control, and other mechanical control
14 measures should be evaluated in the EA. FWP requests that other control measures either be considered as alternatives within the EA, or be considered in addition to the proposed herbicide work as a separate project. To fully have an IWM approach, all possible methods of control/prevention should be considered.

Thank you for the opportunity to provide comments on the proposed project. If you have any questions please contact Jon Hanson (827-9320) or Eileen Ryce (444-2448).

Sincerely,

Bruce Rich
Fisheries Bureau Chief

C: Brian Burky, AVISTA
Dave Burch, MDA
Jim Vashro, FWP

13) Fishing restrictions are not required for the currently proposed herbicides at the proposed rates. FWP ANS Coordinator will be informed prior to any treatments that require fishing restrictions.

14) The Noxon Rapids and Cabinet Gorge dams and reservoirs are operated by AVISTA under a Federal Energy Regulatory Commission (FERC) license and the terms and conditions of the January 1999 Clark Fork Settlement Agreement (CFSA), which establish a number of requirements and restrictions on operation of the two dams. These documents establish minimum pool elevations for the Noxon Rapids and Cabinet Gorge reservoirs, which result in maximum allowable drawdowns of 10 ft. and 7 ft., respectively. This means that only a portion of the reservoirs that contain EWM could be exposed by a drawdown event, since EWM exists at water depths of up to 30 ft. Drawdown could only be used to expose a portion of the EWM areas, leaving perhaps a majority of the infestations unaffected. Drawdown would also affect all species that occupy the exposed base of the reservoir, not just the EWM, which would result in loss of fish habitat across

the entire exposed floor of the reservoir, including the majority of the exposed areas which do not have EWM infestations. This would result in a much larger loss of fish habitat. Changing the FERC and/or CFSA requirements are beyond the scope or authority of this EA. In addition, the Purpose and Need for a project provides the foundation for alternative development. As directed by the Montana Environmental Policy Act (MEPA), a reasonable alternative should fulfill the Purpose and Need. As discussed in the EA, the Purpose and Need for this project is to conduct Phase 2 of the research project which is evaluating the effectiveness of aquatic herbicides on EWM in a flowing system and implement an operational herbicide treatment program as part of an Integrated Weed Management program. As discussed in the EA, the Proposed Action is broken out into three phases and each phase is dependent on the results of the previous phase. The use of drawdown or other control methods would be another component of an IWM program; however, it would not meet the Purpose and Need for this project, therefore it was not considered as an alternative.

Eurasian Watermilfoil / Curlyleaf Pondweed Research and Implementation Project: Response to EA Comments

John Halpop
MSU Extension/Sanders Co.
2504 Tradewinds Way Ste. B
Thompson Falls, MT 59873
re; Eurasian Watermilfoil / Curlyleaf Pondweed Research and Implementation Project
Dear Mr. Halpop;

The Montana BASS Federation Nation appreciates the need to control/manage the EWM that is established in Noxon Rapids Reservoir. However, there is nothing in the EA that was released, in regard to fish populations and potential mortality numbers. There are 3 objectives, none of which
1 include anything about the fishery. How will we know if there is a fish kill when the weeds die off and the dissolved oxygen drops to fatal levels and the dying plant matter creates ammonia? I don't see anything in this "research project" to monitor that. The timing of the herbicide/dye application coincides with the peak of the spawn and when the highest concentrations of young of the year are in the weed beds. Adult fish can and probably will move from the affected areas. The fry won't be
2 able to go that far and most likely will be killed as a result. The EA claims, "Dissipation should be rapid, between a few hours to a few days." I don't think fry will be able to hold their breath that long.

Noxon reservoir is a state and regional quality largemouth and smallmouth bass fishery and critical to the economy of the area. Originally Noxon reservoir fisheries were enhanced through stocking. That has not been the case since the listing of the bull trout in the late nineties. Since then all fish in
3 Noxon are naturally reproducing. Conducting 'research' for weed management using herbicides on such an important fishery as this is a bad idea. Noxon has westslope cutthroat and bull trout as well. Since the bull trout is a listed species FWP is not allowed any activities that enhance the bass populations. If something happened to harm the bass population during these EWM treatments there would be nothing FWP could do to bring the population numbers back up, e.g., stocking.

There is no better statement of the potential negative risk than what has already been written and admitted to in the EA,

"Alternative 2: Proposed Action

Direct and Indirect Effects

Response to Curtis Spindler,
Montana BASS Federation comments:

1) Pages 4-18 to 4-21 of the EA include a qualitative discussion of the impacts of the alternatives to fish throughout their life cycle. It would be extremely difficult to obtain a direct estimate of associated fish mortality and would not be feasible for this project. However, vegetation monitoring (fish habitat) has been ongoing since 2008 and will continue to occur on an annual basis throughout the life of the project. Results from the annual monitoring will be reviewed by the Task Force and the Technical Advisory group and results will assist in directing the treatment program. FWP biologists are members of both the Task Force and the Technical Advisory Group. Therefore, it is anticipated that in the event that negative impacts to fish populations occur, the Task Force and Technical Advisory Group will address these impacts and adjust the herbicide treatment program accordingly. Regarding dissipation rates and dissolved oxygen/ammonia issues: There is no evidence or obvious reason to believe that dissipation rates should not be

adequate to avoid significant fish mortality within treated areas due to toxicity. The proposed herbicides have a low toxicity risk and will be administered in compliance with the label. In addition, the labels do not identify fish restrictions. As stated in the EA, water quality surveys were completed 5-weeks after herbicide treatments in 2009. Dissolved oxygen (DO) was measured during these surveys and results indicated the DO levels within treated plots were 5.0 mg/L. This level is above the optimum level to support a healthy fish population. Therefore, there is no indication that low DO or associated ammonia levels are likely to be a post-treatment issue within the flowing systems of the project area. However, as previously discussed, in the event that the treatments result in negative impacts to the fish populations, the Task Force and Technical Advisory Group would adjust treatments accordingly.

2) Comment noted. The research aspects of this project relate to the effectiveness of the herbicides and their impacts on native vegetation in a flowing system. The impacts of these herbicides on fish have been reviewed by EPA prior to their approval for use in aquatic systems. As discussed in the EA, the Proposed Action does not pose a risk of a significant negative impacts to fish populations. However, as previously discussed, in the event that the treatments result in negative impacts to the fish populations, the Task Force and Technical Advisory Group would adjust treatments accordingly.

Eurasian Watermilfoil / Curlyleaf Pondweed Research and Implementation Project: Response to EA Comments

Significant reduction of vegetation stands could have a potentially negative impact on recreational fishery populations within Noxon Rapids and Cabinet Gorge Reservoirs. Vegetation stands are used by most species of fish at some point in their life cycles as nesting, brooding, or refuge areas. Species that spend larger amounts of their lives centered in or around vegetation stands would be at greater risk to a negative impact from herbicide treatments as their primary habitat would be removed from the system. Largemouth bass, in particular, nest, brood and feed in close proximity to vegetation stands and pose to have a proportionally larger risk to impacts from herbicide treatments. The species of vegetation present does not seem to be a limiting factor on the population and production of largemouth bass. Of greater importance is the presence of some aquatic vegetation in which to carry out a typical life cycle.

"The herbicides included in the proposed action are selective herbicides and have the ability to kill certain plants without harming others. Resistive plants can survive herbicide treatment by metabolizing or not absorbing the active chemicals in the herbicide. Plants targeted by the selected herbicides are perennial dicots (EWM) or monocots (CLP and flowering rush). Plants that may remain in aquatic settings after herbicide treatment could include sedges, rushes, elodea and other native submersed aquatic vegetation, and cattails. These plants and others may be found in sufficient quantity to provide the needed resources for largemouth bass and feeder fish species. This would allow fish and young fry, which are most susceptible to disturbance, an opportunity to displace to the adjacent, untreated vegetation within the bed. Impacts would be minimized as fish could disperse to adjacent hiding cover and avoid the conditions created as target vegetation is treated and dies".

4 Recreational fishing in Noxon is heavily impacted by smallmouth and largemouth bass. Why are these
5 fish not mentioned in the fish counts listed in the EA? Are any of the agencies comfortable that they
6 have accurate numbers for the bass population in Noxon reservoir? Are they comfortable that a heavy loss due to herbicidal treatment of EWM will not decimate the fish that contribute to the economy of the area? There is also no mention of northern pike or walleye. These sport fish also bring people to
7 the reservoir to fish. What happens to the local businesses in the area if these fish populations are adversely affected?

If the main objective is to control the EWM then why are there no other methods described than herbicide use. Since most if not all the funds to pay for this are from grants what will happen if the grants are not secured in the future? Will the weeds simply grow back until more money is found.

3) Pages 4-18 to 4-21 of the EA evaluates fishery resources and discusses both largemouth and smallmouth bass. The summary of FWP survey results summarizes the dominant fish species accounted for during the surveys and bass were not the dominant species.
4) FWP conducts annual fish surveys. Survey method include: Gill nets, merwin traps, bass tournament monitoring, and beach seining. Please contact FWP for more details on fish surveys.
5) FWP was consulted during the development of the EA. FWP biologists will participate in the Task Force and the Technical Advisory Group and therefore, will be able to contribute and provide direction for the project as the project progresses.
6) In the event that the treatments result in negative impacts to the fish populations, the Task Force and Technical Advisory Group would adjust treatments accordingly to reduce impacts.

8 Why isn't a less risky draw down considered to manage the EWM? This suggestion has been ignored and yet seems to work in other areas. The following was found with a simple google search;

"Response to Cultural Methods
Localized control (in swimming areas and around docks) can be achieved by covering the sediment with a opaque fabric which blocks light from the plants (bottom barriers or screens). Managers of reservoirs and some lake systems may have the ability to lower the water level as a method of managing aquatic plants. The Tennessee Valley Authority (TVA) uses both winter and summer water level drawdowns as effective way of reducing Eurasian watermilfoil biomass. They find that a drawdown of about 2 meters is effective in reducing excessive populations. Short-term dewatering for 2-3 days during period of freezing temperatures has been effective, but multiple exposures may improve control. A 1-week drawdown of a large TVA impoundment in July 1983 desiccated about 810 hectares of Eurasian watermilfoil. A narrow, relatively weed-free band occurred after refilling and control effects extended into the following two growing seasons. In Washington, the Bureau of Reclamation lowered the water level of Banks Lake in 1994 in an effort to manage Eurasian watermilfoil populations. The success of a drawdown on Eurasian watermilfoil is dependent on several factors such as degree of desiccation (drawdowns in rainy western Washington are often ineffective), the composition of substrate (sand vs. clay), air temperature (the exposed sediments need to freeze down to 8-12 inches), and presence of snow."
http://www.ecy.wa.gov/programs/wq/plants/weeds/aqua004.html

9 At the very least a reasonable answer should be provided as to why a drawdown each year would not have the same effect without the risk. A winter drawdown would save thousands of dollars and not occur during the spawning of any fish. Most fish pull out to deeper water during the winter months. Winter draw down could control the EWM in the areas that are of most concern of spreading by fragmentation, i.e., boat ramps and docks. It could be done every year with or without the addition of herbicide treatments or grants to pay for them.

10 At a minimum the plan should include participation by Montana FWP to monitor fish populations.

Thank you for the opportunity to provide comments on the proposed project.

Sincerely,
Curtis Spindler
Past President, Montana BASS Federation Nation
cc: Ken Riska, MT BFN
Jay Evans, MT BFN

7) The Noxon Rapids and Cabinet Gorge dams and reservoirs are operated by AVISTA under a Federal Energy Regulatory Commission (FERC) license and the terms and conditions of the January 1999 Clark Fork Settlement Agreement (CFSA), which establish a number of requirements and restrictions on operation of the two dams. These documents establish minimum pool elevations for the Noxon Rapids and Cabinet Gorge reservoirs, which result in maximum allowable drawdowns of 10 ft. and 7 ft., respectively. This means that only a portion of the reservoirs that contain EWM could be exposed by a drawdown event, since EWM exists at water depths of up to 30 ft. Drawdown could only be used to expose a portion of the EWM areas, leaving perhaps a majority of the infestations unaffected. Drawdown would also affect all species that occupy the exposed base of the reservoir, not just the EWM, which would result in loss of fish habitat across the entire exposed floor of the reservoir, including the majority of the exposed areas which do not have EWM infestations. This would result in a much larger loss of fish habitat. Changing the

FERC and/or CFSA requirements are beyond the scope or authority of this EA. In addition, the Purpose and Need for a project provides the foundation for alternative development. As directed by the Montana Environmental Policy Act (MEPA), a reasonable alternative should fulfill the Purpose and Need. As discussed in the EA, the Purpose and Need for this project is to conduct Phase 2 of the research project which is evaluating the effectiveness of aquatic herbicides on EWM in a flowing system and implement an operational herbicide treatment program as part of an Integrated Weed Management program. As discussed in the EA, the Proposed Action is broken out into three phases and each phase is dependent on the results of the previous phase. The use of drawdown or other control methods would be another component of an IWM program; however, it would not meet the Purpose and Need for this project, therefore it was not considered as an alternative.

8) Please see the above response to comment 7.

9) Please see the above response to comment 7.

10) Annual fish habitat monitoring will continue to be conducted via vegetation monitoring. The FWP will be actively participating in the review of monitoring result and the direction of the project through their participation in the Task Force and the Technical Advisory Group.

Eurasian Watermilfoil / Curlyleaf Pondweed Research and Implementation Project: Response to EA Comments

From: jay.t.evans@gskbio.com [mailto:jay.t.evans@gskbio.com]
Sent: Wednesday, June 16, 2010 9:47 AM
To: jhalpop@montana.edu
Cc: Ryce, Eileen
Subject: re; Eurasian Watermilfoil / Curlyleaf Pondweed Research and

Implementation Project

Dear John Halpop,

Here are my comments regarding the EA for the Eurasian Watermilfoil /Curlyleaf Pondweed Research and Implementation Project.

1. The EA or project plan do not provide measures of success and go/no-go criteria to move from the research to implementation phase. Three research objectives are listed on page 16, but no predetermined criteria for success were included, simply open ended research that allows herbicide treatment irregardless of the success or consequences. End points should be established for the research phase including minimum % reduction in Eurasian Watermilfoil and maximum allowed non-desirable effects on native plants, invertebrates and fish. The research and implementation phases of this project should be separated in to two projects with independent EAs. The EA for the implementation phase should address the effectiveness and negative consequences of the research phase including herbicide effects on fish, invertebrates, birds, etc.

2. Results from the dye and herbicide treatment studies completed in 2009 should be included in the EA. What were the effects on non-native vs native aquatic vegetation? Fish sampling prior, during and after treatment? invertebrates? amphibians?

3. Timing of herbicide treatment corresponds with the peak of the bass spawn and no assessment of fish populations are included in the study design. Treatment should not be allowed from May 15-July 31 unless the research and implementation phases include plans to measure the effects on bass spawn, fecundity and recruitment.

Response to Jay Evan's comments:

1) Annual monitoring of vegetation has been occurring since 2008. As stated in Chapter 3 of the Environmental Assessment (EA), annual monitoring evaluates herbicide treatment effectiveness and the impacts of treatments on native vegetation. The objective of the research phase of the project is to determine water exchange rates and maximize treatment efficacy. Treatments are considered successful when herbicide treatments achieve significant control of weeds while allowing native vegetation to persist and recolonize. Results of monitoring are reviewed by the Task Force and the Technical Advisory Committee. The Task Force and Advisory Committee determine when the objectives of the research phase are complete and the project is ready to move to the operational treatment phase.
2) The Proposed Action is broken out into three phases and each phase is dependent on the results of the previous phase. As directed by the Montana Environmental Policy Act (MEPA), a reasonable alternative should fulfill the

Purpose and Need. As discussed in the EA, the Purpose and Need for this project is to conduct Phase 2 of the research project which is evaluating the effectiveness of aquatic herbicides on EWM in a flowing system and implement an operational herbicide treatment program as part of an Integrated Weed Management program. The all three phases of the Proposed Action meets the Purpose and Need for the project and therefore, it is not necessary to development more than one MEPA document.

3) Results from the 2008 and 2009 vegetation monitoring and treatment analysis are available by contacting John Halpop, MSU Extension/Sanders County. Portions of these reports were summarized within the EA as appropriate.
4) Treatments will occur during July or August as this is the period of peak effectiveness for herbicide treatment. Annual fish habitat monitoring will continue to be conducted via vegetation monitoring. In addition, the FWP will continue to conduct annual fish surveys within the reservoirs. The FWP will be actively participating in the review of monitoring results and the direction of the project through their participation in the Task Force and the Technical Advisory Group. In the event that the project significantly impacts fish populations within a negative way, the Task Force and the Technical Advisory Group would adjust treatments accordingly to reduce impacts.

Eurasian Watermilfoil / Curlyleaf Pondweed Research and Implementation Project: Response to EA Comments

4. The project design, effectiveness and impacts are focused 100% on Eurasian Watermilfoil / Curlyleaf Pondweed control and are grossly negligent regarding the effects on fish, invertebrates, birds and amphibians. Other species in the area could be dramatically impacted as a result of the treatment but we would not know due to a lack of sufficient monitoring. Proposal includes moneys and plans for treatment and assessment of plants but no funds are allocated to assessment of effects on fisheries, invertebrates, birds, etc. How will the effect on fisheries or aquatic inhabitants be assessed if they don't look? This could be devastating to some species and we would not find out until 10 years later when they are all gone. Likewise this could be good for some aquatic species (native or non-native) in Noxon Reservoir and nobody would ever know.

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5. No information is provided on the toxicity of proposed herbicide combinations, laboratory toxicology assessments of LC50, mutagenicity, etc for each combination should be completed prior to field application. Toxicities of compounds are often amplified (synergistic) when used in combination.

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6. If the proposed herbicide treatment is "safe for humans, fish and animals" why are restrictions on public use (fishing, swimming, irrigation) included during treatment and for the days following application?

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7. No provisions were included for monitoring herbicide or excipients leaching into ground water or wells near treatment areas. How will this be monitored to ensure safety for local residents?

8

8. Alternative approaches are not discussed in the EA. Other reservoirs in this region (Banks Lake, Potholes Reservoir, etc) have successfully used winter draw-downs to control Eurasian Watermilfoil in the shallow water areas around docks and boat ramps. This option should be addressed in the EA as an alternative approach.

9

Please feel free to contact me if you have any questions regarding my comments or would like further clarification on any of the points.

Best Regards,

Jay Evans, Ph.D.

1432 Wild Apple Lane Corvallis, MT 59828

406-381-0573

5) Pages 4-18 to 4-21 of the EA include a qualitative discussion of the impacts of the alternatives to fish throughout their life cycle. Vegetation monitoring (fish habitat) has been ongoing since 2008 and will continue to occur on an annual basis throughout the life of the project. In addition, the FWP will continue to do annual fish surveys within the reservoirs. Results from the annual surveys and monitoring will be reviewed by the Task Force and the Technical Advisory group and results will assist in directing the treatment program. FWP biologists are members of both the Task Force and the Technical Advisory Group. Therefore, it is anticipated that in the event that negative impacts to fish populations occur, the Task Force and Technical Advisory Group will address these impacts and adjust the herbicide treatment program accordingly
6) The EPA approved labels for the proposed herbicides do not identify any potential for amplified toxicity for the proposed combinations. In addition, Kurt Getsinger of the US Army Research and Development Center is not aware of any

documented cases of amplified toxicity relative to the herbicides proposed for use (personal communication).

7) The herbicides currently proposed for use do not have restrictions associated with them. This language addresses other herbicides that might be used in the future. All herbicides used would be registered by the Environmental Protection Agency and the State of Montana. The EPA registration process requires and reviews an extensive set of scientifically sound (80-120 chemistry, toxicology, exposure, and environmental) studies for each herbicide prior to marketing and use. EPA scientists review these studies to determine whether or not the herbicide, when used according to the herbicide's use directions and restrictions, would cause potential adverse effects to humans or the environment, including wildlife plants and animals. Only those herbicides determined to be safe to humans and the environment are allowed to be registered.

8) As stated in page 4-15 of the EA, "There are no anticipated direct or indirect effects to water quality other than short-term impacts within application focus areas. Herbicide application would follow pilot test recommendations and the manufacturer's label rates of application. While these recommended application rates would exceed short-term water quality standards listed under Montana WQB-7; due to the short lived nature of these compounds under normal oxidizing environments and exposure to sunlight, short-term increased health risk to humans or adverse environmental effects with the application of these herbicides is not expected." The infiltration of water from the reservoir into groundwater typically would take considerable time, given that groundwater flow rates are in the tenths of a foot to several feet a day, hence, the time period for groundwater to migrate to a receptor would allow degradation of the herbicides to a far greater level than would be observed in the reservoir.

9) The Noxon Rapids and Cabinet Gorge dams and reservoirs are operated by AVISTA under a Federal Energy Regulatory Commission (FERC) license and the terms and conditions of the January 1999 Clark Fork Settlement Agreement (CFSA), which establish a number of requirements and restrictions on operation of the two dams. These documents establish minimum pool elevations for the Noxon Rapids and Cabinet Gorge reservoirs, which result in maximum drawdowns of 10 ft. and 7 ft., respectively. This means that only a portion of the reservoirs that contain EWM could be exposed by a drawdown event, since EWM exists at water depths of up to 30 ft. Drawdown could only be used to expose a portion of the EWM areas, leaving perhaps a majority of the infestations unaffected. Drawdown would also affect all species that occupy the exposed base of the reservoir, not just the EWM, which would result in loss of fish habitat across the entire exposed floor of the reservoir, including the majority of the exposed areas which do not have EWM infestations. This would result in a much larger loss of fish habitat. Changing the FERC and/or CFSA requirements are beyond the scope or authority of this EA. In addition, the Purpose and Need for a project provides the foundation for alternative development. As directed by the Montana Environmental Policy Act (MEPA), a reasonable alternative should fulfill the Purpose and Need. As discussed in the EA, the Purpose and Need for this project is to

conduct Phase 2 of the research project which is evaluating the effectiveness of aquatic herbicides on EWM in a flowing system and implement an operational herbicide treatment program as part of an Integrated Weed Management program. As discussed in the EA, the Proposed Action is broken out into three phases and each phase is dependent on the results of the previous phase. The use of drawdown or other control methods would be another component of an IWM program; however, it would not meet the Purpose and Need for this project, therefore it was not considered as an alternative.