A REPORT TO THE TEXAS PARKS AND WILDLIFE COMMISSION:

FINDINGS OF THE USE OF MOTORIZED VEHICLES IN NAVIGABLE STREAMBEDS TASK FORCE

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Background

Although the specter of motorized vehicle use in Texas streambeds seems to have recently arisen, the evolution of this recreational form has taken place over a much longer period. Without question, motorized vehicle use in Texas rivers and streams has both a long cultural and agricultural history. Sepia-toned pictures of Model-T Fords sitting astride a small stream abound in tattered family albums, and the sight of pickup trucks hauling feed across a shallow ford is a common fixture of Texas agriculture. However, motorized vehicle operation in streambeds began to loom large in the rearview mirror of landowners and environmental organizations when organized "4X4" events became popular activities and destinations on the recreational landscape of Texas.

For the purposes of this report two terms require definition. The term MV (motorized vehicle) will be used inclusively for all forms of wheeled or tracked motorized vehicles (all-terrain vehicles, motorcycles, 4X4, etc.).

The term "streambeds" refers to that part of the bed and bank of navigable waters lying below the gradient boundary. Tidewater limits refers to the upper or inland limits at which the tide reaches in a particular stream, creek, or river. In navigable waters above tidewater limits, the public has a right of access, as long as they do not trespass on private property to gain access, and use of the bed and banks (as well as the water) even though the bed may be in some cases privately owned.

The frequency and magnitude of MV rallies taking place in Texas streambeds have grown throughout the last decade. The cumulative concerns of citizens regarding that practice were expressed in a bill introduced in the 77th Texas Legislature that could have resulted in a ban on MV use in streambeds. Although the bill failed, the Joint Interim Committee on Water Resources was charged with studying protection of streambeds. The House Recreational Resources Committee has also received an interim charge to study MV use in streambeds.

At its annual public hearing in August 2001 the Parks and Wildlife Commission heard testimony from a stream of landowners (40+) whose properties adjoined the Nueces or Llano rivers. As a result of that testimony and subsequent staff investigations regarding the basis of those concerns, the Commission Chair formed the "The MV in Navigable Streambeds Task Force" (Task Force) to provide a broad and balanced perspective. Task

Force members were selected to represent identifiable stakeholder groups including State Agencies (GLO, TNRCC, TDA), River Authorities (Nueces, LCRA, GBRA), Landowners, Local River Users, Recreational Vehicle Enthusiasts, and Environmental Groups (membership is listed in Appendix A). To focus the scope of the Task Force, the Commission provided a clear charge to its members:

"The objective of the Task Force is to bring together a broad spectrum of stakeholders to provide perspective to the Texas Parks & Wildlife Department and Commission regarding the issue of motorized vehicles in navigable streambeds."

Defining the Issues

The first Task Force meeting occurred on December 11, 2001 and was a fact-finding mission (Appendix B). Bob Sweeney, Legal Counsel in the Resource Protection Division, summarized how other states have regulated motor vehicle use on their lands (Appendix C). Unlike many other states, no state agency in Texas has the clear authority to regulate MV activity in streambeds.

Staff gathered stakeholder comments after presentation of Mr. Sweeney's legal information and all members were encouraged to voice their viewpoints and concerns. In general, there were issues upon which the Task Force agreed and those upon which they disagreed.

Issues Upon Which the Task Force Agrees:

1. **Streambed Users are a Diverse Group**
   The Task Force identified many different recreational uses of streambeds and a long list of user groups. With that background, education and enforcement activities must be targeted to identifiable groups and tailored for those groups. Further, not all MV operators in streambeds are members of organized groups.

2. **Legal Access to Rivers Must Be More Clearly Defined**
   All groups agreed that there are legitimate non-destructive activities that occur in Texas streambeds and that legal access to these activities should not be constrained beyond current law, regardless of any future legislative action regarding MV. Traditionally, many streambeds, the Nueces River for example, have provided access to camping, picnicking, canoeing and swimming. Further, access to these areas provides significant recreational opportunities for low-income Texans who find these resources to be a sole source of affordable outdoor recreation.

3. **Existing Laws Should be Enforced**
   All groups agreed that existing laws--specifically those laws regarding littering, water pollution, inappropriate public behavior and trespassing--provide enforcement officials a mechanism for addressing abuses of public and private resources. Several respondents suggested that an increased emphasis on law

enforcement and an increased law enforcement presence would solve many, if not most, of these problems.

Several respondents commented that although there are existing laws to deal with many of the identified enforcement issues, practical enforcement of these laws is not an easy or straightforward task. Law enforcement officials face several constraints in enforcing current laws.

- Violations of littering, pollution and trespass laws (for example) tend to be low on the priority list for most local law enforcement agencies, largely as a practical matter—they have many other enforcement responsibilities as well.
- Many of these violations take place in secluded areas that are very difficult to reach by enforcement officials.
- The gradient boundary that forms the legal demarcation between public riverbeds and private land is not easily discernable.
- Violations are sporadic and not easily monitored.

4. Availability of River Access Points to the Nueces River is Not A Significant Issue

Members pointed out that the Nueces River courses over 108 miles in Real, Uvalde, Edwards and Zavala County. Within that reach, there are 24 access points. In Uvalde County there exists a minimum of 8 access points and one landowner in the county has donated land (17 acres) for access to the River.

5. Private Property Rights

All members agreed that private property rights should be protected and respected by users. Virtually all members viewed the question of trespassing as a serious problem. It is often difficult to determine what constitutes private property along a streambed. As a result, it becomes difficult for users to determine if they are trespassing. Even where a landowner has clearly delineated public and private lands, trespass does occur. In one case, a landowner has documented 50 episodes of alleged trespassing in the last year.

Sometimes, perhaps even a majority of the time, river users simply do not know if they are on public or private lands. The difficulty lies in the definition of public property as it relates to streambeds. The legal demarcation between public streambeds and private land is the gradient boundary—which can only be surveyed on the ground by a licensed surveyor. The gradient boundary has never been surveyed on most streambeds in Texas, and any flood may have changed the boundary if it had been surveyed.

The ambiguity related to recognizing the gradient boundary is a double-edged sword. While it often fosters trespassing, one member suggested that the lack of clear boundaries was often used to prevent what should constitute legal access to public streambeds. Since the location of the gradient boundary is misunderstood by untrained persons, the lack understanding of gradient boundaries then becomes

a significant law enforcement dilemma. Officers are often unsure which party in a trespassing dispute is correct.

It is clear that whether a stream is legally navigable or not it can be a controversial issue that leads to dispute over public and private rights to use. Left in its current state, the future holds promise only of an increasing number of conflicts.

6. **Natural Events Have Significant Effects on Streambeds**
   Several members commented that streambeds are affected by a wide variety of naturally occurring events, particularly floods. These events redistribute sediment, gravel and even boulders—while often changing the stream course itself. Flood and rainfall events also transport litter into streambeds. These events have significant water quality effects as well, although these are often short-lived.

7. **Texas Streambeds are Diverse and Must be Considered Individually**
   Members agreed that the diversity of Texas streambeds requires that management strategies for each be considered on individual merits.

8. **Education of Users is Critical to Effective Streambed Management**
   All groups agreed that many of the problems associated with streambed use could be—and should be—addressed by better education of users. Education should be directed at several areas including (but not limited to) littering/pollution, trespassing, effects on wildlife habitat, and dissemination of "tread lightly" principles. Organized MV groups can and often do provide a ready means of accomplishing this goal, but membership and organized activities are relatively minor compared to the overall number of users.

9. **Management of Texas Streambeds Will Require a Cooperative Effort**
   Members agreed that all interested groups and individuals must work together to protect streambeds. Some members commented that Task Force members had more concerns in common than there were differences. Several members expressed a desire to find common ground to protect streambeds for future generations.

10. **Alternative Recreational Sites Should be Developed**
    Task Force members agreed that alternative areas should be developed or procured for MV use. Some members commented that in the absence of such areas, public streambeds are one of the few venues for operation of these MV.

11. **Pollution is a Significant Problem in Many Texas Streambeds**
    Pollution, in the form of littering and garbage dumping, often is a significant problem in Texas streambeds, and one that is readily visible to most users. Other forms of pollution that directly or indirectly affect water quality may not be so easily recognized, but are more damaging. For example, a quart of motor oil can

contaminate 250,000 gallons of water and just over a pound of a common herbicide can contaminate one million gallons of water.

Landowners recognize that much of the visible trash and debris does not come from organized MV outings but rather from the groups who congregate at bridge crossings where refuse or garbage collection facilities are not provided. Nonetheless, landowners and environmental organizations see considerable litter in areas away from road crossings and water pollution resulting from releases of automotive fluids. Conversely, streambed users attribute much of the physical and chemical pollution occurring in streambeds to poor landowner stewardship.

The Texas Natural Resource Conservation Commission (TNRCC) has general authority over monitoring and control of water quality, and TNRCC resources can be used to verify concerns about water pollution. Taking the Nueces River as an example, chemical pollution appears less a problem than litter or garbage dumping. TNRCC divides the Nueces above Holland Dam in La Salle County into two segments (designated as segments 2105 and 2112). The demarcation point is FM 1025 in Zavala County. The uses for these segments are contact recreation, high-quality aquatic life use and public water supply/aquifer protection. TNRCC's current "303(d)" list of impaired segments does not include either segment 2105 or 2112. Accordingly, TNRCC considers these segments to meet established uses and to be unimpaired by pollution. Specific water quality studies of recreational impacts on water quality in the nearby Frio River at Garner State Park showed no impairment from the heavy (non-MV) use there.

Issues Upon Which the Task Force Disagrees:

1. **Does the Use of MV in Streambeds Directly Affect Fish and Wildlife Resources?**
   Some members of the Task Force commented that operating a MV along a streambed or stream course is an excellent way to access areas where fish and wildlife viewing or fishing is available to them. Members commented that most of this activity takes place in areas that are too shallow and too ephemeral to support substantial populations and diversity of fish species. Members commented that many of those areas used by MV enthusiasts have never (in their memory) served as areas for substantial fishery resources.

   Other members commented that MV operation displaces bird populations (turkeys and eagles were specifically mentioned) and could also affect fish populations. Some members commented that use of a MV is not a traditional means of accessing these areas and that wildlife responds to that disruption very quickly by moving to other areas.

2. **Does the Use of MV in Streambeds Affect Habitat?**
   Members of the Task Force commented that when "Tread Lightly" principles are employed and when outings are correctly conducted, stream habitats are not affected. Members commented that MV are well maintained and are not sources of water pollution. Further, members commented that disruption of streambeds by MV is not

significant compared to natural processes, particularly rainfall events, in affecting distribution of sediments, gravel and water quality.

Other members of the Task Force expressed concerns that effects are cumulative and related to numbers of MV. Members commented that as numbers of MV in streambeds increase, long-term effects will accumulate and may result in acceleration of erosive processes. Members commented that specific sections of streambeds (the Llano and Nueces rivers for example) have been demonstrably and irreversibly negatively affected by vehicular traffic.

3. **Is There a Need for New Laws and Regulations?**
   While members generally agreed that enforcement of existing laws is important, the Task Force expressed a broad range of views on this issue of new laws or regulations. Some members commented that MV operation in a streambed is inappropriate and that new legislation should be enacted to restrict activities involving use of MV in streambeds.

   Other members expressed concerns that new legislation would represent a first step in restricting the rights of low-income users and traditional local use of Texas streambeds. Members pointed out that wording of recent legislation was, in their view, too exclusive of certain user groups.

4. **What Activities Constitute "Appropriate Use" of a Streambed?**
   Task Force members were polarized in their opinions about what constituted "appropriate use" of Texas streambeds with regard to MV use. Some members believe that any MV use in a streambed is inappropriate and others believe responsible MV use is quite appropriate. All agree that there is a limit and at some point such activity is damaging, but the Task Force did not reach agreement as to whether that is one, ten or a hundred MV.

Exploring the Issues

Comments captured from the Task Force discussion can be summarized in three questions:

- **When does "use" become "abuse?"**
- **How can we define appropriate access?**
- **What are the "resource impacts"?**

Use vs. Abuse

The delineation of "use" and "abuse" is subjective and largely a matter of degree. For example, does one MV in a streambed represent "use" and a hundred MV in the same streambed "abuse?" The subjective nature of this question may well render quantification difficult and begs a consensus answer that perhaps is a negotiated calculus.

Much of the discussion related to "use" and "abuse" hinges on the notion of "traditional use" of streambeds in Texas. Task Force members were split on this issue, some finding

residence at each extreme of the question and some in between. Again, this question is clearly a matter of degree. Some members suggested that any MV use in a stream is not a traditional use while others point out that MV have been used for recreational and agricultural purposes for decades.

Issues of Legal Access

Because so much of Texas is private property, legal access may be limited in areas and confusion about access and trespass rights and restrictions is commonplace. The current legal means of defining public and private property boundaries (gradient boundary) of navigable waters is problematic and its complexity contributes to access conflicts. The hazy definition of public water in Texas streambeds and the lack of an easily defined border between public and private holdings almost ensure these conflicts will increase in the future.

All stakeholders support the use of and access to public streambeds for recreational activity. The question is concisely one of means. Landowners and other stakeholders assert that their issue is focused on MV, not boats, canoes, kayaks and pedestrian means of access. They reiterate that they support the latter as appropriate uses and MV as inappropriate. Conversely, MV enthusiasts argue that these MV cause little or no damage when operated responsibly and, with good judgement, trespass issues can largely be avoided.

Although landowners recognize that not all MV operators contribute to trespassing, they report a dramatic increase in trespass incidents as the numbers of MV in streambeds have increased. Landowners and other stakeholders are also concerned about resource impacts, poaching, inappropriate public behaviors, hunting safety issues and the use of drugs and alcohol on all public streambeds, not just adjacent to their property. Of particular concern to private landowners are the organized rallies that have occurred. Organized MV groups point out that these areas are public property in a state where public lands are limited, especially in contrast to other western states.

Local residents have access concerns, but tend to be more focused on use of MV in streambeds as a means of reaching a destination (picnic area, swimming hole, etc.) rather than a recreational activity in itself. Local streambed users point out historic use of the MV in a streambed as a means to reach swimming and fishing areas. These activities represent a significant and important recreational access strategy for local residents. Some members felt that claims of resource damage are a pretext for denial of access to the public.

Resource Impacts

Definitive studies to determine the effects of MV activity on riparian habitats in Texas are incomplete. The issue simply has not been on the scientific radar screen in Texas for a sufficient period to allow—or demand—investigations of the depth and breadth necessary to ascertain any measurable cause and effect relationships between MV and environmental or biological degradation. Nonetheless, TPW staff experts in wildlife, fisheries and stream ecology have completed preliminary evaluations (Appendix E) and

agree that MV activity does cause ecological damage. The extent of that damage and its contribution to degradation of rivers and streams relative to other perturbations be they natural or man-made, is not known. There is simply insufficient Texas-specific information at this time. The Task Force, then, was left to consider results of studies from other states (Appendix I & J).

National MV organizations have expressed concerns about the use of MV in streambeds and have developed guidance documents to help their members avoid resource impacts. Organized Texas MV groups represented on the Task Force reported their organizational adherence to "Tread Lightly" principles (Appendix H). However, these claims are not supported by empirical data. MV use in streambeds is occurring despite the specific direction of "Tread Lightly" principles to "*Avoid streams, lakeshores, meadows, muddy roads and trails, steep hillsides, and wildlife and livestock*." The Honda Motor Company "Tread Lightly" guidelines state: "*Traveling in a stream channel causes damage to aquatic life*". Other provisions of the "Tread Lightly" pledge and principles state, *"...Stay on designated roads and trails. Avoid sensitive areas at all times. Especially sensitive areas susceptible to scarring are streambanks…*"

Websites sponsored by both organized MV groups and individuals provide ample testimony to the fact that guidelines are not necessarily used. On websites sponsored by organizations and some individual websites the "Tread Lightly" guidelines are noted and recommended. The focus of these sites is generally not illustrative of the "Tread Lightly" ethic. Featured photos and trip reports are frequently contradictory to the guidelines showing multiple vehicles—headlight deep—in water and reports boasting of broken axles, radiators, transmissions, etc. These sites tend to support the concerns of those opposed to MV activity in streambeds. On reporting this to MV users, many of these sites have since disappeared or have been modified.

While all stakeholders recognize the potential for resource impacts, not all believe that concern has been realized in Texas because of the ephemeral flow of streambeds like the Nueces. Many MV enthusiasts believe that periodic flooding ameliorates short-term effects of MV use in the Nueces. These flood events redistribute sediment, gravel and even boulders—while often changing the stream course itself.

Flood and rainfall events also provide transportation of litter into streambeds and have significant water quality effects, although these are often short-lived. In addition, when organized groups plan trips, they often conduct litter and trash removal activities as they travel down the streambed. They also maintain that large rallies have only occurred on a limited basis and that normal outings are comprised of small groups of MV. MV users suggest that landowners alter the streambed by the use of heavy equipment and assert that this action causes as much, if not more, damage than MV activities.

In a very real sense, the legitimacy of MV use in public streambeds rests upon a definitive answer to the question of resource impacts. That is, the question of "traditional use" is highly subjective, while resource impacts at least can be quantified. In the presence of data quantifying those impacts, the decision becomes rather matter-of-fact.

In its absence, the picture is not so clear. While landowners and environmental organizations can argue the philosophy of traditional streambed use, opposing viewpoints can equally argue that "traditional" use has neither a scientific or legal basis.

User Conflicts

Dr. Ron Kaiser, Department of Recreation, Park and Tourism Sciences, Texas A & M University stated his belief that the central issue is user conflict rather than resource impacts. The dichotomy of viewpoints regarding the issue of MV use in navigable streambeds is not limited to natural resource impacts and represents a social conflict regarding the use of a limited state resource. Several experts attest that this conflict of use is (or should be) the focus of the Task Force, rather than resource impacts. That basis is clearer and more direct than one that emphasizes a resource concern.

The Task Force did not totally agree with Dr. Kaiser's position. While MV representatives did tend to agree with his comments, most others held the opinion that the importance of resource impacts in this issue is of equal or greater importance to that of user conflicts. Some members stated that the most significant goal is to protect drinking water sources and to protect instream flows.

What Do We Know?

At the second Task Force meeting on January 23, 2002, three panels were invited to address questions and concerns of Task Force members. Representatives of the law enforcement community (Panel 1), experts on access issues (Panel 2), and resource experts (Panel 3) provided their viewpoints and took questions from the Task Force. Some panelists provided summaries of their comments (Appendix D). In addition, the Task Force was briefed on the Department's Redfish Bay State Scientific Area (a possible model for a management strategy) and the Motorized Trails Program (as a source of funding for an alternative MV venue). Summation of these two briefings is included (Appendices F&G).

Law Enforcement

During this panel discussion, TPWD wardens outlined their responsibilities as exercised in three field activities, (1) wildlife enforcement, (2) fisheries enforcement (recreational and commercial), and (3) water safety enforcement. In their roles as Texas Peace Officers, game wardens also enforce traffic law and the Penal Code. Traffic law enforcement is usually restricted to more flagrant violations such as Driving While Initoxicated (DWI), while Penal Code violations include offenses such as criminal trespass, discharging a firearm on a public road and assault.

Wardens from across the state reported problems, especially traffic law and Penal Code violations, associated with MV activity within state-owned streambeds (Appendix E). The Department of Public Safety reported that DPS officers could also assist with enforcing traffic and Penal Code violations in navigable streambeds, but their response protocol mandates DPS actions must be secondary to game warden response.

Agency Responsibilities

General Land Office

In its presentation, the General Land Office (GLO) stated that navigable streambeds are the public domain of the State, subject to the control of the legislature or to specific state agencies as directed by the Legislature. The GLO is responsible for managing lands and minerals that have been dedicated to the Permanent School Fund, to include leasing the minerals under the approximately one million acres of state-owned streambeds. This acreage figure is not easily confirmed, nor does it represent all lands available to MV use—much of it is inundated by water on a more or less permanent basis. A better figure, however, is not available.

In addition to mineral leasing, the GLO is authorized to issue right-of-way easements across navigable streambeds for projects such as pipelines, utilities, and roads. In exercising its responsibility for executing leases and easements across navigable streambeds, the GLO must determine which streambeds are state-owned and/or navigable. To make these determinations, historic records, field notes, survey plats and maps are used in conjunction with field assessments by Licensed State Land Surveyors (when necessary) employed by the GLO. Other state agencies such as TPWD, the Texas Natural Resource Conservation Commission (TNRCC), and the Office of the Attorney General look to the GLO for assistance in making state ownership and navigability assessments.

Texas Parks and Wildlife Department

TPWD regulates the taking of fish and wildlife in public waters and the disturbance of sand and gravel in the beds of navigable streambeds and tidally influenced waters.

Texas Natural Resource Conservation Commission

The Texas Legislature delegated to the TNRCC the control of diversion and consumption of water through a water rights system, and the control of pollutant discharge into the waters of the state.

Resource Impacts

There is limited scientific data about the impact of vehicular traffic in streambeds in Texas. However, the issue has been addressed in other states and in a recent position paper by the Texas Chapter of the American Fisheries Society (Appendix J). This report states MV damage streambeds by breaking down stream banks and causing damage to riparian vegetation, subsequently resulting in erosion, siltation, and the prevention of bank stabilization. This increases the potential for other water pollution impacts, which detrimentally affect aquatic ecosystems. The policy statement also maintains that MV are a major factor in the spread of non-native plants, and affect the behavior of many wildlife species, causing them to avoid areas used by MV.

Presentations and preliminary reports by TPWD staff (Appendix E) also reported damage to the streambed and banks of the Nueces River and its flora and fauna.

Despite the paucity of scientific information, the National Forest Service in Texas has made a policy decision and banned this activity on most of its lands. This policy was established largely on concern about adverse impacts. With that, the NFS has also provided specific areas to accommodate MV use.

Management Models

TPWD's Redfish Bay State Scientific Area

In June of 2000, the Parks and Wildlife Commission established the Redfish Bay State Scientific Area (Appendix F). The Commission employed this strategy to address user conflicts and resource impacts in that area. Under the Parks and Wildlife Code, Section 81.501-81.506, the Department can establish scientific areas for the purpose of education, research, and preservation of flora and fauna of scientific or educational value. The Commission may accept or reject a proposed area, formulate rules to manage and protect scientific areas, and advocate research and dissemination of research results.

Further, under Section 13.101 of the Parks and Wildlife Code, the Commission may adopt rules to protect health, safety, and property in state scientific areas, to include public water within state scientific areas.

There exist similarities between prop-scarring in the seagrass beds and the issue of MV in state-owned streambeds. The seagrass issue was also many-sided. Stakeholder discussions focused on traditional vs. non-traditional uses, who or what was the cause of decline in seagrass populations, and whether boat traffic affects fish and wildlife resources. The Commission established a Seagrass Task Force to evaluate possible solutions to these issues and to reach a consensus-based strategy.

Strategies employed for establishing the Redfish Bay State Scientific Area involved creation of Redfish Bay and Nine-Mile Hole Scientific Areas (involving continued research over a 5-year period), aggressive boater education, creation of voluntary "prop up" zones in Redfish Bay, and finally, creation of a mandatory "no run" zone in Nine-Mile Hole.

Motorized Trails Program

The TPWD Motorized Trails Program (Appendix G) administers the allocation of federal funds available for motorized trail creation. These funds come from federal highway taxes or revenues, and is utilized on a cost-share basis. Local groups can use land as their share, and there is at least one very successful MV trail that has been established in Texas using these funds. Other states have created MV programs within their state agency or other state agencies. These programs develop and manage MV on state lands. Some states allocate gasoline tax revenues or other funds to support these programs. A chart comparing state MV recreational programs is in Appendix G.

What Do We Need To Know?

What is the Extent of the Issue on a Statewide Basis?

The issues and conflicts surrounding the Nueces and Llano Rivers have been well described by the Task Force and through other avenues of public comment. During the course of this initiative, it has become clear that there are statewide implications. Staff has received empirical and anecdotal information suggesting that MV use of streambeds is controversial in several watersheds across the state. It has become clear during this process that the issue is of greater statewide extent than may have initially been known. The Task Force focused on streambeds, but concerns have been expressed regarding MV usage on coastal public lands not covered by dune protection laws. Therefore, decisions made regarding the future of the Nueces and Llano rivers should not be made in an information vacuum, without consideration of the implications for other watersheds and stream courses.

Will Restrictions to MV Traffic in One Waterway Result in Relocation to Other Waterways?

This question is central to any strategy employed to manage the Nueces and Llano rivers. A consensus plan to reduce user conflict and concern specific to those areas would be of little value if the result simply shifts the conflict to another riverine venue.

What are the Implications for Aquatic Resources in the Future?

Rivers, streams and coastal areas of Texas represent some of the most accessible public lands in Texas and one of the few areas where MV can be operated (excepting dunes on coastal lands) with relatively minor restriction. In the face of a growing population and a relatively steady state of public land acreage, will these activities become more widespread and more intense in the coming years? The answer is clearly, "Yes."

A review of demographic data and of sales of ATV's suggests that this form of recreation will increase in popularity. With that, the eventual appearance of resource impacts moves from probability to likelihood and the frequency of user conflicts is destined to escalate. In 2000, 734,000 ATV's were sold nationwide and the industry predicts that by the year 2004, one million ATV's will be sold annually. The sale of ATV's has increased 120% since 1997. Further, as the population of Texas' urban areas increases, access to public lands outside the confines of cities will become a more sought-after.

Can We Ascertain Resource Impacts?

Although limited scientific data in Texas indicates that MV can cause damage to riparian habitats, we do not know how many MV it takes to cause damage or prevent recovery of the riparian system if it is damaged. The riparian ecosystem is subject to natural stresses such as rainfall events and drought, and resident species have adapted to survive and recover from these natural stresses. The unanswered question is whether MV use within these riparian ecosystems will be the final stress that prevents the ecosystems' ability to recover from historic natural stresses. Due to differences in streambeds, some are more readily subject to erosion and other impacts caused by vehicular activity. In that context,

the number of MV necessary to cause significant, irreparable damage within a given streambed may vary between and within watersheds. With that concern, it may be impossible to gather "perfect information" regarding the effects of MV use in streambeds. In short, decisions may need to be made in the absence of conclusive scientific data in Texas.

To What Extent is Safety an Issue?

As used by MV traffic today, streambeds are unregulated in terms of safety concerns. There are no established "right of way" provisions for MV as for boat traffic on waterways, no speed limits and no demarcated lanes. Laws that apply to conduct in public places generally apply to streambeds. However, traffic safety laws whose application is limited to public roads do not apply.

Are There Existing Legislative Models in Texas and Other States to Address These Concerns?

In Texas, the Open Beaches and Dune Protection laws in the Natural Resources Code stand as the best available models of resource protection coupled with legislative clarification of public access rights and private property rights. Montana's river use laws apply a comparable approach to its freshwater rivers, and Montana law bans most motor vehicle traffic from public waterways. New Mexico, Louisiana and many other states have authorized a state agency to adopt rules to manage state lands, including the beds and banks of waterways. Another possible legislative approach would be to delegate regulatory authority to a local entity, such as a river authority. This tactic has some parallel in Texas law (Chapter 11 of the Parks and Wildlife Code) governing treatment of aquatic vegetation.

Conclusion

The issue of MV in Texas streambeds is representative of the social and cultural changes Texas is experiencing in the 21st century. The membership of the Task Force represents a microcosm of the shifts in preferred means of outdoor recreation and an example of the user conflicts inherent to land and water based recreation that arise as Texas evolves from the "old" Texas to the "new" Texas. Some outside of TPWD have admonished the agency to avoid user conflict issues like this one. An examination of action items and issues before the agency and Commission over the last five to ten years is ample demonstration that this has not been, nor will likely be the case. It is not even possible to exercise such constraint. Many, if not most, of the issues the agency and Commission face routinely stem from user conflict. In the past it may have been more within a user group (allocation of a species via bag limits, etc) than between users (commercial and recreational fishers). The shift in focus has been a steady one. Resource and user conflicts are now moving to a more fundamental level (habitat, e.g. seagrass, riverbeds, parklands, etc). This will become more the case as population increases and more pressure is brought to bear on resources for which TPW has responsibility. To ignore them undercuts the very foundation of what is necessary to manage fish and wildlife resources: water,

water quality, and habitat. “Damned if you do and damned if you do not” – the old saying holds true.

That fundamental issue aside, staff have reached several conclusions based upon the information received through staff research and input from the Task Force. These conclusions are those of TPWD staff and do not represent a consensus or even majority view of the Taskforce. A draft of the report has been provided to the Taskforce and their direct comments made available to the Commission, but not necessarily included in the report.

No Texas State Agency Has Authority to Regulate MV Use in Streambeds

The Texas Constitution establishes the public right to use rivers for navigation (Article XVI, section 59). The Texas Supreme Court carefully guards the public’s ownership of riverbeds: “[E]ven prior to the admission of Texas into the Union it was its policy to reserve unto the government its river beds to be held in trust for all the people. Since Texas became a state, it has rigidly adhered to that policy.” State v. Bradford, 121 Tex. 515, 538, 50 S.W.2d 1065, 1073 (1932). Bradford held that the riverbeds, unlike most public land, had not been transferred to the permanent school fund (PSF), in part because transfer to the PSF could have resulted in these lands being sold and passing out of the public domain.

Today, the growth of Texas and the scarcity of public land mean that the rivers and riverbeds serve many purposes—and sometimes these purposes conflict. In addition to navigational use and water supply, streambeds provide fish and wildlife habitat, opportunities for multiple forms of recreation, enhancement of private property values, and scenic beauty. The current controversy over motor vehicle use leads to broader policy questions: Should the use of riverbeds be managed for particular purposes? What should those purposes be? And who should be the manager?

The Task Force Members Are Divided on the Central Issue of MV Use in Streambeds

Not unexpectedly, Task Force members simply--and firmly--view the issue from of MV use in streambeds from different sides of the gradient boundary. The universe surrounding the operation of MV in streambeds has been well described by the Task Force, yet the members have found little common ground related to the focal issue of whether MV use in a streambed is an appropriate use of that resource. Some members believe it is entirely appropriate, others believe it is entirely inappropriate.

MV Use in Streambeds Affects Fish, Wildlife and Associated Habitats

It is the opinion of TPWD staff that in those streambeds where MV activities are conducted, water quality, fish and wildlife and their habitats are negatively affected by those activities. MV use in a streambed is not a benign activity; research conducted in other states has demonstrated the negative effects of MV use in streambeds on fish and wildlife resources. Preliminary results of investigations in Texas support those findings. It is an ecologically harmful activity.

Results of studies conducted in Texas and in other states are conclusive in describing the effects of petroleum-based fluids and engine coolants on water quality. While it has been posited that MV use in Texas is conducted without loss of motor fluids into surrounding water, observations do not support that position.

Although greatly affected by land use practices and alterations of the watercourses themselves, Texas rivers and adjacent plant communities still provide a great amount of wildlife and fishery habitat—in a state in which the population is expected to double in the next 40 years and in which land fragmentation is a constant resource challenge. And as the 21st century progresses, these resources will become increasingly important in water quality maintenance and as fish and wildlife habitat. The frequency and magnitude of MV activities are not regulated in Texas. Against that backdrop, it appears unlikely that the water quality, habitat and fish and wildlife resources in those affected streambeds can be sustained over the long-term, especially if current MV recreational activity continues and grows, as it is expected to do.

MV Use in Streambeds and other Wetlands is Not a Recommended Use

Manufacturers of MV do not recommend operation of these vehicles in streambeds or wetlands, in fact, it is discouraged. The prevailing recommendations of manufacturers and national MV organizations specifically direct operators to avoid water resources. All of the major vehicle manufacturers publicly support "Tread Lightly" principles. "Tread Lightly" clearly states that operation of a MV in a streambed is not an appropriate use of that vehicle.

River Access Exists, But is Largely Inadequate

Any action to restrict MV use in streambeds might have unintended consequences that must be considered and addressed in order to not create or enhance other conflicts. The attraction of Texas streambeds to users is that these are public lands, open for use by all Texans. Public access points are generally in the form of road crossings and they are seldom adequate for safe access, much less public use for recreational purposes. On the Nueces River (for example) many of the problems reported by all the stakeholders in this process were related to inadequate infrastructure and services at those points.

Public/private land is generally not delineated where roads cross streambeds. The confusion surrounding the gradient boundary as the demarcation between public and private land can result in inadvertent use of private lands. Further, that same confusion, by ignorance or design, has been employed to discourage legal access of users.

Most of these access points lack adequate parking areas, trash receptacles, signage and restroom facilities. The results are predictable: traffic violations, litter, trespassing, safety issues and inappropriate public behavior. River access is inadequate to support the user demand for both places to enter and enjoy the stream and to maintain the quality of the user's experience.

Venues For Off Road Vehicle Recreation Are Inadequate

If MV access to streambeds is eliminated, enthusiasts will look for other venues to enjoy their recreational activity. It seems reasonable that alternative areas for MV use could and should be developed through available trails programs or new programs that invited development of those trails. It is possible that given a different venue for MV use, most of the activity currently taking place in streambeds would move to non-riparian sites. A lack of venues certainly contributes to current and expanding use of public lands for this type of recreational activity. TPWD does have a program that makes federal funds available for MV trail development.

Any Change in Current Law Would Present Both Consequences and Opportunities

The complexity and magnitude of the issue suggests that resolution will require statutory changes. Texas has roughly one million acres of public land cradled within its streambeds, and these areas are among the last extensive fish and wildlife habitats in Texas. The lack of clear regulatory authority to manage MV use in Texas streambeds results in a management landscape that results in inadequate management.

Perhaps the most often voiced reason for use of MV in streambeds is to move upstream or downstream from an area immediately adjacent to an access point. There are clearly substantial consequences to an outright ban on MV use in streambeds. When access points become congested, using a MV becomes a means of escaping that congestion. It is important to note: Use of MV in streambeds like the Nueces River has been and continues to be an outdoor recreation mainstay for local users. Changes in law that might ban the practice of using a MV to move up and down a streambed would effectively exclude many who rely on MV use to access their (often) sole outdoor recreational opportunity.

While the Task Force focused on motorized vehicles, many landowners brought to the Task Force meetings and the Joint Interim Committee hearing other legitimate concerns and frustrations—not necessarily related to MV activities--about streambed use adjacent to their properties. For example, landowners questioned the safety of river use when hunting and target shooting with rifles is unrestricted in the riverbeds. Moreover, other states have used their river laws to reinforce landowner property rights and to limit liability. Legislation that addresses MV use could also deal with broader landowner concerns.

There is no easy solution to this very easily defined problem. The simple solution offered by some has unintended consequences. In these “tragedy of the commons” issues, unintended consequences nearly always result. Solutions must be comprehensive and thoughtful. Resource managers and policy makers most often have to take a deep breath, weigh the relative benefits and the future cost of taking no action, then decide. Hopefully, this report has provided sufficient information and analysis to confidently do so.

Can We Develop an Integrated Solution?

This is a complex issue with a diverse array of legitimate stakeholders. No single action will solve the user conflicts and potential resource impacts related to MV use in Texas' streambeds. It seems reasonable, based upon past strategies employed in resolving similar resource issues, that a multi-faceted strategy—one that relies on focused regulation, appropriate statutory authority, education, law enforcement and a creative means of providing new recreational opportunities – may offer promise.

Appendices

A. List of Task Force Members

B. Summary of Comments from Task Force Members from December 11, 2001 Meeting

C. Laws of Selected States Governing Motor Vehicle Traffic in Publicly Owned Riverbeds (contains Appendices 1-9)

D. Summary of Panelist Comments from the January 23, 2002 Task Force Meeting

E. Preliminary Staff Assessments of the Impact of Motor Vehicles on the Nueces River and Game Warden Observations

On CD:

F. TPWD Redfish Bay State Scientific Area Presentation

G. Texas Parks & Wildlife Motorized Trail Grant Information; Chart of Other States MV Programs

H. "Tread Lightly!" Pledge & Honda Tread Lightly Pledge

I. Study: "How Off-Highway Vehicles Affect Mountain Sheep"

J. Texas Chapter of American Fisheries Society Policy Report

K. Letters and Information from Task Force Members

L. Letters from Government Agencies and Elected Officials

Transcript of Texas Parks and Wildlife Commission Annual Public Hearing, August 2001

"Caught in the Treads"- Unethical Advertising in the ATV Industry

Overview of Texas Stream Navigation Law