

First, thanks to Dody and to IWRC for the confidence you express in me. I'll try to do a competent job of chairing this committee. And to start, I hope that this email reaches all of the right parties. If I have emailed you in error, please tell me so. And if you see that I've overlooked someone, please forward this along.

As the new kid, I'd like to know a bit about all of you-- both IWRC and NWRA committee members. And I think you are entitled to know a bit about me. I realize that everyone is busy, and I do not want to be a burden right off the bat, but a very brief note will suffice. Please send me:

- your full name (so I can associate it with your email address),
- your affiliation (IWRC / NWRA),
- your organization, if applicable,
- some illumination of your history with, and your interest in, the document MSWR,
- and any other information you deem appropriate.

For my part, I seem to be the new Chair of the IWRC Minimum Standards Review Committee (is that the correct formal name?). I am also a long time member of IWRC, NWRA, and Florida Wildlife Rehabilitators Association (FWRA). I presently serve on FWRA's Board of Directors. I have been a permitted wildlife rehabilitator for more than 30 years. I have been employed by Treasure Coast Wildlife Hospital, Inc. since 1993, and consider it to be my vocation. Previous to that, I was VP and CEO of a transportation company in Miami, and rehab was my avocation. My academic background is in biology, chemistry, and secondary education. I was - briefly - a high school teacher, and an adjunct instructor at the community college level. For a time, I was also a "regulatory specialist" for the Florida Department of Agriculture, first in its Bureau of Special Programs and, later, its Division of Plant Industry. At that time I was one of the regulators, interpreting and enforcing the rules. Perhaps my interest in professional systems and regulatory issues stems from that period.

Since my full time employment in rehab beginning 1993, my perspective changed; I am now a stakeholder, one of those being regulated rather than one doing the regulating. As such, I have been involved with a number of governmental agencies on matters relating to wild creatures and domestic animals, including but not limited to the following: Circa 1997 - 2000, I was a member of a committee appointed by our local Board of County Commissioners (BoCC) to review animal ordinances at the local level. As a result of the committee's work, the BoCC adopted sweeping changes that modernized and enhanced animal regulation in our county. I was also instrumental in facilitating (politics isn't always a dirty word) the transfer of our Animal Control agency from the Emergency Services department, where it was languishing from neglect, and its reincarnation with the Sheriff's Office. As a result, Martin County now has properly trained animal control officers, with full police powers, enforcing reasonable regulations. I continue as a consultant to the Sheriff's animal control division, and help to train their officers.

I serve on the County Health Department's Rabies Task Force, and its West Nile Virus Task Force. Both of these groups work with stakeholders (animal owners, veterinarians, health workers, etc.), government agencies, and the general public, disseminating information and developing contingency action plans for the governmental units affected.

Approximately once a decade, the Florida Fish & Wildlife Conservation Commission (Florida's ultimate governing body for all matters relating to wildlife, both native and exotic) impanels a group of presumed experts to consult on current regulatory issues. Called the Captive Wildlife Technical Advisory Group, the latest panel worked from 2005 through 2007. Members included representatives from major captive collections, major wildlife exhibitors, veterinarians, animal industry, "personal possessors" of wildlife, wildlife rehabilitators, and others. (Details at <http://myfwc.com/captive/captivewildlifeTAG.html>) I was a member of this CWTAG. (Yes, we laughingly refer to ourselves as "Cow-Tag".) The scope of work included a comprehensive review of captive wildlife regulation in the state, including caging standards, husbandry, qualifications for possession, prohibited species, penalties, and wildlife rehabilitation. A number of our recommendations have been adopted by the Commission, and others are under review and public comment. Currently I continue to work with FWC on the development of a written examination to test applicants' qualifications to possess venomous reptiles.

I believe that I have relevant experience from both sides of the fence, as a government regulator and as a stakeholder being regulated. Philosophically, I believe that stakeholders and governmental entities can be worthy partners. This applies equally to "Professional Associations" of stakeholders like IWRC, NWRA, and FWRA, which sometimes buffer between the regulators and the people directly affected. However, it would be foolish to overlook the fact that regulators and stakeholders approach the same issues from opposite directions. Regulators focus on problems and abuses, and tend toward "systematic" (some would say bureaucratic) solutions. Stakeholders focus on successes, and tend toward individualization. If the relationship between the two is not carefully managed, it can become strained or even adversarial. It is incumbent upon regulators to be open minded and receptive to the needs of those they govern, and luckily, with few exceptions, that is the case with wildlife rehab. However, it is equally necessary for the stakeholders, and their representatives, to be forthright and unambiguous about both the mission and the realities of the regulated activity. I believe that our task with MSWR is critical to maintaining this positive working relationship between wildlife rehabilitators and the various agencies that govern us.

That's my 2 cents worth. I await yours.

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My fellow reviewers,

I've read all the comments (!!) and reread the entire book (MSWR Third Edition 2000). Before making specific recommendations of my own, and before attempting detailed analysis of the individual submissions, I'd like to offer some general discussion.

First, I have reminded myself that MSWR is a terrific compendium! I believe that the information incorporated into this volume is of enduring use to every wildlife rehabilitator, regardless of experience. I support this assertion by noting that the overwhelming majority of comments offered by working rehabbers can be characterized as minor tweaks. I assume it will be our job to decide which of these tweaks actually constitute improvements.

However, in reviewing these comments and attempting to group them into general categories for analysis, I find that at least a substantial percentage relate to one specific area: that of cage and enclosure sizing. As many responders have expressed, there is a growing conflict between hardware standards in MSWR and some local zoning codes. I separately know this to be an ever increasing problem here in Florida, as expanding urbanization brings more and more "neighbors" into contact with rehabilitation facilities. Often these people know nothing about animals, but are upset, even horrified, to discover "wild animals" being kept in their neighborhoods. Local zoning and animal control officials attempt to assuage public concerns about safety, disease, and pest control by enacting construction regulations that, in effect, limit or prohibit rehabilitation in many places.

As expressed in many comments, State, provincial, and local wildlife authorities also seem increasingly inclined to use MSWR's cage sizing recommendations as inviolable standards. We saw exactly this potential problem when USF&WS advertised a Proposed Rulemaking that would have incorporated MSWR as a regulatory standard. Because of extensive feedback, the final Rule actually enacted by USF&WS incorporated only cage sizing (not the remainder of the volume) and that only as a "guideline".

Regulatory agencies should be, and often are, our friends. But some agencies and some wildlife biologists still hold the old opinion that ours is a foolish humanitarian gesture of no biological value, and our existence is an unwanted intrusion upon their prerogatives and their work load. For those so inclined, it is simpler to regulate us by tape measure than by understanding. Indeed, many of the comments received speak to exactly this situation and request relief through modification of cage sizing recommendations. Unfortunately, we ourselves have created the problem. MSWR includes statements (in different places) like:

Minimum standards for facilities and individual caging and enclosures are based on experience, knowledge of the species natural history and common sense. An effort should be made by the rehabilitator to obtain as much information as possible on each species admitted through reference and natural history literature and contact with other rehabilitators familiar with the species. Through an understanding of each species' behavior and natural history, proper choices can be made to provide suitable cage habitats.

The cage sizes recommended in this document are minimal, and the suggested materials work well for many rehabilitators. Alternative techniques for housing and pre-release conditioning are encouraged, but must meet basic natural history, comfort, and hygiene requirements. Assigning cage size strictly by species is not always realistic;

variations in an individual's size due to race or age, and variations in an individual's behavior due to age and season, will affect appropriate cage size. Dimensions can be modified to accommodate special needs of the facility or the individual animal and new advancements in the field.

The above is a pretty reasonable general statement, recognizing some of the multitude of variables and accepting divergent solutions. We also say things like:

The goal is to give each animal the best chance of post-release survival in its natural place in the wild. Wildlife rehabilitators should combine information from *Minimum Standards*, current publications, wildlife veterinarians, experienced mentors, and personal experience, along with common sense and good judgment to make the best decisions for each individual animal.

This too attempts to meld specifics with generalities, encouraging innovation. But elsewhere (see below) we demand rigid measurements in the first sentence, then try to somehow allow for variation in the following sentences. The result is only confusion, when we make statements like:

The procedures and cage sizes described herein have been developed by experienced wildlife rehabilitators, and are considered to be **MINIMUM** standards - i.e., more detailed procedures or different cages are certainly acceptable and encouraged! Because wildlife patients undergoing rehabilitation are individuals, each with different injuries and unique behaviors, recommended cage sizes and techniques may not apply to every case. The wildlife rehabilitator is encouraged to alter techniques for housing, pre-release conditioning and other aspects of the rehabilitation process, so long as basic natural history, comfort, and hygiene needs are met. Cage dimensions can be modified to accommodate special needs of the facility, animal or new advancements in the field.

Finally, we directly contradict all of the somewhat flexible statements quoted, and move completely into the realm of inviolable linear measurements mandated with a distasteful elitist and authoritarian tone by declaring:

The cage sizes recommended in this manual are minimums. Every bird would benefit from as large a flight area as possible and the rehabilitator is encouraged to construct larger cages whenever reasonable. The recommendations throughout the *Minimum Standards* have been tried by experienced rehabilitators and shown to be the minimums acceptable for safe and effective rehabilitation of the species indicated. Remember that large cages intended for animals with greater space requirements can be designed to be subdivided or furnished for other species when needed.

It should be no wonder that some regulators take us at our word and seek to evaluate us simply by tape measure. We can't seem to decide ourselves what we really expect.

I strongly suggest that we drop the final statement quoted, as it is simply not supportable. There is no data directly comparing relative success upon release from differing cage sizes for any, let alone all, species covered. We have absolutely zero proof that "every bird would benefit..." and that larger is always intrinsically better. In fact, several of the Comments specifically recommend reductions as being "better" for various reasons. Nor do we even attempt to justify the application of this statement of faith about birds into rigid hardware measurements for mammals and reptiles.

In point of fact, all cage sizes offered as minimums are judgement calls. They may be informed and sincere judgements made by experienced persons, but they are judgements just the same. I submit that not even Ed Clark at the Wildlife Center of Virginia uses cages that meet in all particulars the supposed 'minimum' sizes required by MSWR. (I've been there.) Neither do we. Indeed, as a practical matter it is virtually impossible to do so. Going by the strict yardstick offered, a different cage size is necessary for each of some dozens of species of birds, mammals, and reptiles. My own facility has recorded in excess of 240 species as patients. It would be ridiculous for us to attempt to provide cages of the exact dimensions 'required' by MSWR for each and every one of them; some overlap and some flexibility must be acceptable. Indeed, this seems to be exactly what we are trying to explain in the first three quotes above.

We also apply the 'minimum' description to such items as pool dimensions. But do, for example, brown pelicans actually require a pool 24 inches deep? We see a lot of pelicans here, and can testify

that most recuperating pelicans cannot reach fish that sink to the bottom in 2 feet of water. Is 2 feet deep then really the absolute *minimum* pool depth? Or is it in fact *too deep* for the birds to effectively use while feeding?

I believe that the various dimensions given in MSWR have considerable merit. They provide valuable guidance, especially for beginning rehabilitators or any of us dealing with a new species. Truly, one cannot rehab an eagle in a shoe box or a bobcat in a phone booth; that demonstrates the ‘ridiculous and impossible’ end of the scale, which is to be avoided.

But consider, the ‘minimum’ required for, say, a redtailed hawk is 10x50x12 (Table 5). We can surely agree that this size is used successfully. But is anyone prepared to seriously argue that a cage 10x48x12 would necessarily have a measurable negative impact upon redtail rehab? Hardly. That is why the quotations above suggest and invite a degree of flexibility. We could perhaps reduce these dimensions somewhat further (10x45x12?) and maybe further yet (10x45x10?) until, at some debatable point, the cage does indeed become too small and would no longer be suitable for redtail rehab. This does *not* mean that the original recommendation is valueless. It *does* though mean that the actual, real world, genuine *minimum* cage size for redtail rehab is larger than a shoe box and *smaller* than 10x50x12. Therefore, 10x50x12 is in fact *not* a minimum size. It is certainly a preferred size, since it was chosen by our experts. It may or may not be an optimum size; bigger may or may not be better in actual results. But without turning the dictionary definition completely upside down, it *cannot be called the minimum size* that will allow successful rehab of a redtail. Same story, different numbers, for every cage in the list, whether avian, mammalian or reptilian.

[And I will only note tangentially that crows apparently require a flight cage fully a yard taller (15 feet versus 12 feet) than redtailed hawks. Since redtails are stoop predators who drop from above while crows are generalized scavengers who roam laterally, this seems contrary to biological needs. Such inconsistencies serve to undermine the argument that these dimensions are truly relevant, let alone minimal.]

There are serious problems with the descriptor ‘minimum standards’ when applied to hardware without reference to knowledge, skills, or techniques. Someone could indeed choose to rehabilitate redtailed hawks in a flight much larger than the 10x50x12 minimum specified by MSWR. As a standard that rehabilitators are encouraged to exceed (a “strive higher” intent), it might be a laudable idea— or arguably, it might not. But I strongly suspect that a redtail cage built to any of the dimensions above would suffice for a skilled rehabilitator. And no additional flight space will make up for failures in knowledge, skill, or technique. So the given size, in and of itself, isn’t really a minimum after all. Almost any roughly equivalent dimensions should be equally successful given comparable rehabilitator knowledge. And in the case of pelicans, providing a pool 6 or 8 feet deep (the same “strive higher” philosophy) serves absolutely zero positive purpose, and may even be counterproductive. So 2 feet deep isn’t really a minimum either, and perhaps rehabilitators should not be encouraged to exceed it.

Our failure here is not one of philosophy, but of semantic clarity. We go to considerable lengths to incorporate good judgement into the process (e.g., “Dimensions can be modified...” and “The wildlife rehabilitator is encouraged to alter techniques for housing...” and “...recommended cage sizes and techniques may not apply to every case.”). Then in the next breath we demand removal of all judgement (“The cage sizes recommended in this manual are minimums.”) and use the word ‘minimum’ to describe many things that are not strictly quantifiable at all.

Far better in this context would be to state that, given the cage sizes and other measurements in MSWR as a guideline, any *functionally equivalent* variation from those dimensions would be equally acceptable. Providing this clarification will prevent regulators at all levels from substituting their own tape measure for the knowledge, judgement and practical skill of our peers.

What is the desired outcome of the dissemination and use of MSWR? I submit that it is to pro-

vide working rehabilitators with information necessary for evaluating, housing, treating, and managing sick, injured and orphaned wild animals from the point of admission to the point of release with the highest expectation for ultimate survival in the wild. What is the scope of MSWR? The answer is comprehensive management tools, from record keeping to nutrition, caging to furnishings, lighting and temperature regimes, cleaning agents, rodent control programs, continuing education, disease prevention, euthanasia, and a plethora of additional factors (see the Table of Contents). This scope far exceeds any mere list of minimums. Indeed, most of the book provides *alternatives*, and *multiple acceptable courses of action*, not single standards. For instance, a variety of cleaning agents are discussed, but nowhere is it said that “you must use chlorhexidine”. And I am hard pressed to envision fire extinguishers, grievance policies, liability insurance, workers’ compensation insurance, operations manuals, written telephone protocols, or a host of other matters included in the volume as ‘minimum standards’ for a rehabilitator. It is counter productive to limit the utility of the information and to guarantee ongoing debate by insisting upon misuse of the word “minimum”. Sadly, we are hoist by our own petard.

How may we extricate ourselves from this semantic morass without compromising the true value of the information presented? Today we have available certain widely accepted and understood ‘words of art’ to describe management systems that incorporate the best skills, the best processes, the best solutions, and the most appropriate resources into a comprehensive program. We call them Best Management Practices (BMP). BMPs have been developed for everything from stormwater runoff to endangered species recovery, from crop rotation to forestry management, from dairy farming to critical habitat maintenance. As the name indicates, these are comprehensive professional tools that include minimum requirements where appropriate, plus consideration for special needs, flexibility of application, and current advances in knowledge and technique. That very flexibility makes them equally valuable to both practitioners and to regulators.

Given the full scope of the document, I submit that ‘Minimum Standards for Wildlife Rehabilitation’ is misnamed. This volume is much more than an iteration of minimums; it is in fact a Best Management Practices for Wildlife Rehabilitation, and should be named as such. “Best” in this context refers to the peer reviewed and agreed upon comprehensive systems that will allow for proper maintenance of an animal and facilitate recovery to the point of release. What is “best” for an animal will still be governed more by local climatic conditions, experience, husbandry practices, and rehabilitator knowledge than the simple linear dimensions of a cage. The professional application of that totality of skills, processes, solutions, and resources needed to provide the greatest possible chance for recovery and release is the ultimate goal of this volume, and the very essence of Best Management Practices.

Try something, for experimental purposes. Read again the first three quotes above, but change every instance of “minimum standards” (and “minimums”) to “Best Management Practice(s)”:

Best Management Practices for facilities and individual caging and enclosures are based on experience, knowledge of the species natural history and common sense. An effort should be made by the rehabilitator to obtain as much information as possible on each species admitted through reference and natural history literature and contact with other rehabilitators familiar with the species. Through an understanding of each species’ behavior and natural history, proper choices can be made to provide suitable cage habitats.

The cage sizes recommended in this document are Best Management Practices, and the suggested materials work well for many rehabilitators. Alternative techniques for housing and pre-release conditioning are encouraged, but must meet basic natural history, comfort, and hygiene requirements. Assigning cage size strictly by species is not always realistic; variations in an individual’s size due to race or age, and variations in an individual’s behavior due to age and season, will affect appropriate cage size. Dimensions can be modified to accommodate special needs of the facility or the individual animal and new advancements in the field.

....

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Even without additional wordsmithing we have now achieved something that is far less confusing and contradictory than the original verbiage while retaining and even enhancing the original intent.

I submit that the entire document should be so edited and references to “minimum standards”, both literal and contextual (excepting some possible few instances where the term refers to an actual minimum), be replaced by “Best Management Practice(s)”.

Recognition of the scope, the intent, and the proper use of the document and the information it contains would resolve the present confusion. The ‘integrated comprehensive systems’ approach is modern and professional. An understanding that the recommendations are offered as Best Management Practices with allowance for flexibility due to specific circumstances and/or special knowledge would encourage acceptance and participation, and actually obviate the need for many of the specific changes submitted by reviewers. It would alleviate overemphasis on linear dimensioning exclusive of other important factors, and redirect wasteful argument over particulars of measurement into constructive discussion of substantive improvements in technique. And it will prevent regulators from misusing our own pronouncements to replace skill and judgement with an arbitrary yardstick. The sole purpose of a BMP is to provide an integration of those comprehensive conditions, systems, and techniques that are “best” for the animals. That is exactly what the present volume actually intends. Nothing more– and certainly nothing less.

So please let us call a spade a spade– and edit and rename the forthcoming edition, not Minimum Standards, but Best Management Practices for Wildlife Rehabilitation.

Dan