

HISTORY OF THE I.B.W. FLOOD CONTROL GREENBELT
GILA RIVER BASIN
SCOTTSDALE, ARIZONA

Property of
Flood Control District of MC Library
Please Return to
2801 W. Durango
Phoenix, AZ 85009

SCOTTSDALE CITY COUNCIL

Herbert R. Drinkwater, Mayor

James D. Bruner

Heinz R. Hink, Ph.D.

Diane D. Cusack

Jeff Schubert

Billie Axline Gentry

Charlie Smith

Roy R. Pederson, City Manager

David Matthews, Public Information Officer

FORWARD

This report results from three months of research on the history of Scottsdale's Indian Bend Wash. A great effort was made to find original documents and consult people who were active in the project. Compressing twenty years of history into a brief report, however, means that the importance of certain events may be overemphasized, while others are overlooked. Thus, any comments that will enhance the historical accuracy of this report will be greatly appreciated.

Funding for this study consists of grants from the Public Affairs Center of Dartmouth College and the Mellon Foundation.

PART I

INTRODUCTION

Flooding has always existed in the Indian Bend Wash. Until fairly recently, however, not enough people lived in the area to make nature's periodic rainstorms a serious threat. The population boom in the Valley of the Sun began after World War II. In 1951, the tiny town of Scottsdale was incorporated, with a population of about 2,000. Growth continued at a rapid pace, and the town grew larger in size both through annexations and a great influx of residents from other states.

"Old Town" Scottsdale was not big enough to accomodate all the new people, and housing developments began springing up in other places. Flood plains have traditionally been an enticing place to build communities, since the land is flat, easy to build on and inexpensive. Thus, pressure grew to develop lands in or near the IBW. Meanwhile, the days of early growth in Scottsdale were also days of dry weather. The new residents had little or no idea of the power of desert flash floods and the possible loss of life and property damage to anyone who encroached in the IBW.

FIRST CONCERN - 1959

The first step towards recognizing the flood problem, both in Indian Bend Wash and other areas of the county, came on August 3, 1959, when a resolution of the County Board of Supervisors established the Flood Control District of Maricopa County¹ (FCDMC or MCFCD). The MCFCD was to develop a comprehensive program for flood control on a county-wide basis, and then act as the legal local sponsor of any federal flood control projects.

The United States Army Corps of Engineers (USCE or the Corps) also became interested in the problem of flood control in Maricopa County in 1959. The District Engineer held a public hearing on flood control for Phoenix and vicinity on December 9, 1959. Attendance at the hearing numbered 178 persons.² At this meeting, "local interests, including Maricopa County, the cities of Phoenix and Scottsdale, and the Salt River Project (all represented by the

Flood Control District of Maricopa County) presented a plan of improvement providing for channelization of Indian Bend Wash".³ The "local interests" sought to minimize residential flooding, prevent interruptions of irrigation from the Arizona canal, and prevent the interruption of traffic.⁴ The plan called for 16 miles of channelization following the IBW from around Bell Road and 48th Street to the confluence of the Wash with the Salt River.⁵

Neither the Corps of Engineers, the MCFCD, nor the County Clerk could find a transcript or minutes of the December 9, 1959 meeting. Several questions remain unanswered: (1) Who, if anyone, attended the meeting for Scottsdale? (2) Who are the "local interests" referred to in later reports? A probable guess is that the term "local interests" refers simply to the Flood Control District. The City Council minutes of the time period make no mention of IBW, the public hearing, or working with the MCFCD to propose a solution. Thus, one can draw the conclusion that the "local interests", consisting of citizens and their elected officials, had little or no input at this time.

EARLY PRIVATE DEVELOPMENT

The project now enters dormant stage, when seemingly little activity took place. The next development, a local one, appears more than a year later, in February, 1961 with the Scottsdale Daily Progress headline "Millionaire Apartments Granted City Approval".⁶ We still know this development today as Villa Monterey. As the plans were revealed, 90 luxury apartment units would be placed on 14 acres, and an adjacent 81 acres in the IBW would be developed as an 18-hole golf course.⁷ Butler Homes, the developer, reportedly was working with the MCFCD to design a golf course that would drain most of the water through built-in swales.⁸ The area underwent rezoning to allow the apartment units.

Although nobody realized it at the time, Villa Monterey marks the first development to begin fulfilling the Greenbelt concept. Their golf course would later provide inspiration to others that a grass-lined channel could control erosion and provide a natural escape for flood water, while at the same time protect nearby homes.

EVOLUTION OF PLANS FOR A CONCRETE CHANNEL

Meanwhile, however, both the Corps and the Flood Control District continued to develop plans. On February 13, 1961, the Chief of Engineers authorized an "interim survey" of IBW.⁹ This survey would study the problem, analyze alternatives, and make a recommendation to Congress.

By August, 1961, the Corps had developed two alternative plans for solving the flood problems of IBW. The MCFCD presented these two plans to the Scottsdale City Council on August 8, 1961. The first plan called for a 16' high diversion levee to run from Mummy Mountain east to the Evergreen Wasteway which, like the IBW, empties into the Salt River, but is located northeast of Mesa. A floodway 2,200' wide would have to be preserved behind the levee. This alternative had a good benefit/cost (B/C) ratio.

The second plan, which was not recommended at the time by the Corps, called for a 850' wide channelization of the Wash.¹⁰ The B/C ratio for this plan was not as favorable as that of the 1st plan. Manager McNutt urged the Council to decide on a plan soon, and the Council tabled the matter until the next meeting. Concern was voiced that neither the Salt River Indians nor the Bureau of Indian Affairs would approve the levee plan, which would develop areas of the reservation not presently affected by floods.

At the next Council Meeting, August 15, 1961, the Council unanimously decided to approve the levee plan that would funnel water to the Evergreen Wasteway. This plan was less expensive for the City, but other motivations also supported their decision. Scottsdale's leaders did not want a concrete flood control channel going through the town if other alternatives existed. ✓

The Corps, in a September, 1961 letter to Col. Lowry, Chief of the Flood Control District, referred to "the alternative plan involving channelization of Indian Bend Wash from Arizona Canal to the Salt River".¹² Col. Lowry wrote back immediately, stating that the study should consider a channel north of the Arizona canal to the headwaters of the Wash.¹³ The Corps felt that by proper land management, i.e. restricting development, the area north of the canal ✓

could act as a natural floodway. The Corps further stated, "The major flood problem along the Indian Bend Wash is below the Arizona canal where the Wash is poorly defined. Detailed consideration is being given to channel improvement in this reach".¹⁴ Thus, the project area would be confined to the lower Indian Bend Wash, the seven miles between the Arizona Canal and the Salt River.

The Council had good intentions for the City when it voted to support the Evergreen Plan. However, the objections of the affected Indians killed the idea. A Corps News Release of December 19, 1961 reports how the levee idea was dropped and that a concrete channel was now the best solution.¹⁵ The Corps decided not to further investigate the levee plan after an August, 1961 meeting at the Maricopa County Supervisors' Hearing Room, when it became clear that the Salt River-Pima Indians and the Bureau of Indian Affairs opposed the project because of probable adverse affects on future developments of the reservation.

After another meeting on December 19, 1961, the Corps stated, "The best plan of improvement would be a concrete lined trapezoidal channel extending along the existing Indian Bend Wash from the Arizona canal downstream to the Salt River".¹⁶ The channel would be deisgned to carry 40,000 CFS, the 100-year flood at that time. It would be excavated below the surface of the ground to an average depth of 25 feet. Including all rights of way, the channel area would be about 180' wide. Below are the original cost estimates:

Federal Costs	\$7,100,000 (for construction)
Local Costs	1,400,000 (relocation of streets, utilities, etc.)
TOTAL	<u>\$8,500,000</u>
Avg. Annual Charges	295,000
Avg. Annual Benefits	530,000

1.8 to 1 B/C Ratio¹⁷

These reports only represent preliminary findings. However, bureaucratic procedure required the agreement of the MCFCD, the Corps Division Office in San Francisco, and the Chief of Engineers in Washington, D.C. After the next step, which was Congressional authorization, actual construction would depend on appropriation of funds.¹⁸

PRESENTATION OF PLAN TO LOCAL GROUPS

The Corps now had a firm idea that it could solve the problem through construction of a concrete channel. On Jan. 23, 1962, Col. Lowry revealed the Corps' plan to the City Council. He mentioned the dimensions of the trapezoidal channel: seven miles long, 140' wide across the top, 14' wide across the bottom, and 25' deep with side slopes of 2¼ horizontal and 1 vertical.¹⁹ The top of the canal would be level with the ground. After Col. Lowry completed his presentation, the Council voted unanimously on a motion of John Knudsen to tentatively approve the I.B.W. plan, with final approval subject to final plans and congressional authorization.²⁰ Col. Lowry then invited the Council to a public hearing scheduled for Jan. 29, 1962.

Scottsdale did not make any statements at the Jan. 29th public hearing (which continued on Feb. 5). Tempe protested the project, hoping to gain assurance that their city would not be used as the "dumping ground" for floodwaters. When the hearing reconvened on Feb. 5., Col. Peattie of the Parks and Recreation Department (presumably Phoenix?) presented some innovative ideas:

"(Col. Peattie) ... requested the Board to consider whether or not there could be a multiple use of the flood control corridors for hiking and equestrian trails. He realized they were set up primarily to alleviate damage from 50 to 100 year floods. However, these same corridors could be used every day by citizens going to and from the regional park systems and the open range areas. If this opportunity were ~~were~~ considered now, it would later preclude a very costly acquisition of right of way for such purposes."²¹

He further mentioned that Corps officials had told him there were no known federal objections to the multiple use idea. The County Manager mentioned that this concept was new to him, although others had suggested the Wash be used as a highway. The Arizona State Horseman's Association, in asking that IBW be incorporated in a Valley-wide trails system, hoped that the Wash could be used "not as another freeway, but as a place where people can get out and enjoy this wonderful climate."²²

After all of these discussions, the Board of Directors of the MCFCFD (who are also the County Board of Supervisors) passed a resolution stating the Flood Control District would cooperate with the Corps in building a concrete channel in the IBW if studies found the plan economically feasible and Congress granted authorization. Basically, the County agreed to provide all necessary easements and right of way, pay for relocations (of streets, utilities, etc.), provide maintenance and operational costs, prevent encroachment that reduces flood carrying capacity, and "hold and save the United States free from damages due to the construction works."²³

The Corps needed these assurances of local cooperation before construction of a project could begin.

OFFICIAL PLAN RELEASED BY CORPS

Progress towards the concrete channel continued on April 15, 1962, when the Corps released its Interim Report on Survey for Flood Control Indian Bend Wash, Arizona. The report states the nature of the flood ✓

problem, and notes that floods will cause more and more damage as development increases. The report summarizes, "after consideration of plans proposed by local interests, the District Engineer finds economically feasible protection can be provided by construction of channel improvement."²⁴

The report is thorough, with information ranging from project authorization (Public Law 761, 75th Congress approved June 28, 1938) to technical data about the watershed. The report tells of the plan proposed by "local interests," the 16 mile concrete channel, and then outlines the two plans it considered: the diversion levee and the 7 mile concrete channel.²⁵ The report recommends the 7 mile channel which would extend from the Arizona Canal to the Salt River. Construction of bridges at Camelback, Indian School, Thomas, McDowell and Van Buren Streets would provide access across the channel. Although the levee plan was originally thought superior, it was abandoned by the Corps due to Indian objections.

By the time this report was released, cost estimates based on Nov. 1961 price levels had increased as follows:²⁶

\$ 7,250,000	Federal
<u>1,770,000</u>	Local
9,020,000	Total

The B/C ratio remained at 1.8 to 1, and intangible benefits were listed as "large."²⁷

The Interim Report also documents the efforts made to present the plan to local groups, and the local support received. The report cites meetings held, on Aug. 7, 1961, Dec. 19, 1961, and Feb. 2, 1961 to present the plan.²⁸ Local support and commitment to the project is shown by the Feb. 5, 1962 resolution passed by the Maricopa County Board of Supervisors, details of which were given earlier.

Finally, the report recommends that the U.S. adopt the concrete channel project for the IBW, with construction dependent on the ability of local interests to make good on their offers of cooperation.²⁹ Foregoing any unsuspected circumstances, it appeared that the concrete channel plan would become reality.

FROM THE CONCRETE CHANNEL TO NEW IDEAS

Scottsdale's citizens were still sleeping at this time. There was no drive for an alternate channel and no citizens' group to give the town direction. The development of one of the most important areas of the town was unknowingly overlooked by most.

On November 20, 1962, Col. Lowry reported to the Council that Senator Hayden and Congressman Rhodes had contacted the Corps to expedite the project.³⁰ At that time, Lowry hoped the project could be presented to Congress in 1963 for authorization and appropriation of funds,³¹ although the plan did not reach Congress until May 6, 1964.³² To support the project, the Council unanimously passed Resolution 235 on December 27, 1962 "endorsing the proposal for construction of a flood control channel through IBW".³³

Meanwhile, the people of Scottsdale began waking up to the idea that "maybe a concrete channel isn't the only solution - maybe a park system could work too". Trying to establish who first thought of this "greenbelt" idea is somewhat akin to determining who invented the wheel and is equally pointless. Perhaps someone tossed out the idea casually at a cocktail party, or perhaps two golfers at Villa Monterey wondered why the whole Wash couldn't be one big golfer's paradise. And, in fact, it's quite possible that several people thought of a greenbelt idea at the same time, each drawing his own individual conclusions. L.B. Scacewater, longtime City Parks and Recreation Director who was born, raised and educated in the Scottsdale area, takes no credit for the greenbelt concept. He said people were already casually tossing the idea around when he first came to work for the City in 1963.³⁴

Records from the Corps of Engineers show that representatives of the District Engineer held a meeting with representatives of the Maricopa County Department of Parks and Recreation, the MCFCD, and Scottsdale on January 20, 1963 "to explore the possibilities of incorporating park-like facilities in our proposed plan of improvement because Scottsdale is deficient in park facilities".³⁵ And, indeed, Scottsdale was short on parks. An 11 year old boyscout wrote to the Scottsdale Progress saying, "I think that Scottsdale should have more than one park".³⁶ Another suggestion of a combination of park facilities with a north-south expressway was also suggested as appropriate.³⁷

In November, 1963, the City investigated the purchase of about 39 acres of land near Jackrabbit and Hayden. "The proposed flood control channel would pass through a portion of the land", said Williams, "but it would be usable immediately for baseball."³⁸ But, on the same night that Scottsdale City Council authorized Mgr. Williams to negotiate for the park site, the Council unanimously passed resolution 300 endorsing the comprehensive flood control program for Maricopa County.³⁹ The program included plans for the concrete channelization of IBW.

The next day, November 20, 1963, a public hearing was held on the comprehensive program by the Board of Directors of the MCFCD. At this hearing, the following progress report was given about IBW: The project had Corps approval, was presently in Office of the Secretary of Defense, and would then go to the Bureau of Budget, and then to the Congress.⁴⁰ Scottsdale's City Manager, Ken Williams, was "happy to give Scottsdale's endorsement" and hoped the project would go ahead quickly.⁴¹ Only Tempe protested the program, feeling it was the "dumping ground" for several of the projects.⁴² The Board then voted to adopt the Comprehensive Flood Control Program Report.

Some very important events for Scottsdale unfolded in February, 1964. The City decided to retain Stewart-Eisner and Associates, a California based firm, to aid the City in the preparation of a master plan for future growth.⁴³ Also, the first public written support for the greenbelt concept came in the

Scottsdale Daily Progress on February 8, 1964, with Bill Walton's Guest Editorial entitled, "Scottsdale Told: Plan for Parks". In the article, Walton, a landscape architect, compares the potential of IBW with that of Central Park in New York. He advocates a "turfed channel" with recreational amenities, including bridal paths and underpasses of thoroughfares. He urged City leaders to buy all the land where the flood control project would be and "make it into a unique and outstanding park area for Scottsdale". In a recent interview, Walton related that his ideas came from examples in California and the success of the Villa Monterey Golf Course.⁴⁴

After Bill Walton's editorial, things began to "get rolling" towards developing the greenbelt concept and making it a reality. As a result of his editorial, the Scottsdale City Council chose Walton to head up a special Indian Bend Wash Committee. Other Committee members included Dr. Morgan Johnson, L.B. Scacewater, Marie LeVang, Marc Stragier, and William Schrader. No documents can be found stating when the Committee was appointed or how the members were chosen. However, six weeks of meetings went into preparation of their report.⁴⁵

The IBW Committee presented the results of their study to the Council on July 21, 1964. After giving a summary of the status of the project, the report addresses four major questions related to the greenbelt idea:

- 1) Would the Corps be willing to change plans?
- 2) What would the comparable cost be?
- 3) How would property owners feel about having to donate a larger portion of their land for flood control?
- 4) What recreational purposes could the area serve?⁴⁶

The Committee obtained the assurance of Mr. Skip Kramer of the Corps that it was not too late to make a study.⁴⁷ The Committee then decided the cost of the terraced channel was the crux of the problem, as they felt "the combination of recreation and flood control is very feasible".⁴⁸

To solve the problem of satisfying property owners, the report mentions the idea of property owners donating land to the City in exchange for a

compensation or "zoning or other means to raise the value of their remaining property".⁴⁹ The 1966 Master Plan discusses this theme in a section on "incentive zoning". The future use of this policy by the City Council would allow developers to improve much of IBW at a great savings to the taxpayers. The report lists a variety of recreational activities that would be well suited to the Wash. With the exception of bridal paths and horse rentals, the members' dreams in this area have been basically fulfilled. In addition, the parks system in IBW offers recreational opportunities above and beyond the initial ideas.

The Committee then makes a statement which would be echoed and amplified in years to come, that "a concrete lined channel 172 feet wide and fence-lined would divide the City of Scottsdale to such a degree and in such proportion that the division could never be overcome".⁵⁰

Recommendations by the Committee included appropriating funds for a feasibility study to address the combination of flood control and recreation. As a final word of advice, the report states "that the City of Scottsdale cannot afford to let this opportunity go by".⁵¹

SCOTTSDALE CONTINUES EFFORT BUT PROBLEMS APPEAR

There were those in Scottsdale who were not willing to let the opportunity go by. By the time the Walton Committee submitted its report to the Council in July, 1964, the Parks Commission had already directed L.B. Scacewater to study the Foxworth/Galbraith property (south of Thomas and East of Coronado High) for possible purchase. Eldorado Park stands at that site today.

The project continued to hold the Council's attention. On August 4, the new City Manager, Dick Malcolm, gave an update on IBW prospects. At the time, officials thought Congress would authorize the project in 1964, and voters could cast ballots in a county bond election by 1965. Therefore, the City Manager noted that work on the alternate plan must proceed with extreme speed. Two main tasks needed completion: a cost and engineering feasibility report,

and determination of how the Corps would receive the plan.⁵³

The Council also held meetings with other agencies during this time period. Council minutes allude to an August 12 meeting with the Council, the County Parks and Recreation Director, the County Supervisor, Col. Lowry, a Corps representative and the public all invited.⁵⁴ Further minutes make reference to an August 19 meeting with the IBW Committee and the Council. No minutes or transcripts are available for either meeting. However, we know something of the content of the second meeting from newspaper reports and later discussion at Council meetings. Evidently, at this meeting, "the grass-lined channel down the Indian Bend Wash was ruled out ... by Federal and County officials".⁵⁵ The Corps and the MCFCD told City representatives that "plans for the \$9 million channel have progressed too far to make extensive alterations".⁵⁶ As an alternative, they suggested the City buy some park area along the concrete channel.

At the next Council meeting of September 1, 1964, further discussion of the meeting with the Corps and MCFCD took place. Mayor John Woudenberg stated, "the only thing the flood control group is interested in is control of water at the lowest possible dollar...they are not interested in the park and recreational area".⁵⁷ Woudenberg also thought the concrete ditch could be made acceptable by landscaping the access roads for bridal paths, by creating small parks along the channel, and by establishing a flood plain zone where no building could take place which would act as a "greenbelt area".⁵⁸

Other problems existed that made the Greenbelt Plan appear. A dam was thought necessary at the Tempe City limits to control water. The width of land needed for a greenbelt floodplain was substantially larger than the width needed for a concrete channel. With the City's other urgent needs, obtaining this extra land could be impossible.⁵⁹

In short, the Corps and the MCFCD did not encourage the City to continue pursuing any alternative to the concrete channel, which had been based on engineering studies. An engineering study of the alternative plan was needed

before federal and county officials would change their recommendations. However, as noted earlier, the Corps and the MCFCD felt plans were already near completion and the time for new ideas had passed.

Would the City give up under pressure? The answer, at least for the time being, was "NO!". Councilman Bud Tims stated, "the discouraging reaction was not unexpected," and Planning Director George Fretz mentioned the IBW was "the most important unimproved asset in the City".⁶⁰

The City did more than comment; they took action. Letters were sent to all owners of Wash property as the first step towards possible land acquisition.⁶¹ In October, 1964, the Council unanimously voted to approve Resolution 348, regulating development in IBW. The resolution formalized a two-year old Council policy. Action was taken because the City worried about legal responsibility for flood damage if it allowed construction of buildings in the Wash. This resolution was the first step towards the later IBW ordinances. The Council used these land management tools to allow private concerns to develop much of the Greenbelt at no extra cost to taxpayers and, thus, making the project economically feasible.

1964 - ORIGINAL STEP COMMITTEE

At about this time, a new program developed that was to change the course of the town's history. The new City Manager, Dick Malcolm, proposed the Scottsdale Town Enrichment Program, or STEP for short. The plan, as revealed in September, 1964, would set up committees of citizens, councilmembers, and staff advisors to study seven different areas of civic growth and recommend a three-year plan for capital improvements. Two of the task groups, Public Works and Parks Recreation and City Beautification, addressed the problem of IBW.

With the announcement of the STEP Committee, the Parks and Recreation Commission, which had been working towards acquiring washland, decided to forestall more recommendations until the STEP Committees had reached some conclusions.⁶² The ideas and support of the STEP Committees would be a

critical influence in the future development of the Wash.

First, let's take a look at the Public Works Task Group and their findings. Col. John Lowry, longtime supporter of the concrete channel and head of the MCFCD, served on this task group. The storm drain subcommittee of the Public Works Task Group stated, "in effect, the Indian Bend channel must be built before we can build a system of storm drain laterals discharging into the Indian Bend channel".⁶³ The Committee further advised "that the City start a public relations campaign backing the Indian Bend Wash (concrete) Channel Project".

While the Public Works Task Group supported the concrete channel approach, the Parks, Recreation and City Beautification Group sought a viable alternative which would also serve recreational purposes. Included in the group were Councilmen Tims and Senini, Parks and Recreation Commissioner Glenn Crisp, Parks Director L.B. Scacewater, and citizens such as Mrs. Warren Gentry. (For a complete list, consult the STEP books found in the City vault).

Only the minutes of the December 2 and December 9, 1964 meetings of the Parks and Recreation Task Group have been preserved, although at least three other meetings were alluded to. In the December 2 meeting, the Councilmen sounded resigned to the concrete ditch. Comments such as, "the federal men said that there was no other way to solve this drainage problem other than the ditch," and "the project cannot be done without confining it to a concrete ditch so it will not make any difference how much land the City buys"⁶⁴ were brought forth.

The Committee nevertheless voted to recommend "that the major portion of this IBW area be reserved for park purposes and that any development that takes place leads to this end."⁶⁵ Mrs. Gentry had observed that "we are creative people here in Scottsdale and that this canal does not have to be built like an open pit".⁶⁶ Joe Strickler, another citizen put it this way, "one side known as X and the other side known as Y, and if you don't vote for this

project, your kids will be known as the kids from the wrong side of the sewer".⁶⁷ It was agreed that a channel would psychologically divide the city in half and could cause other social or service type problems. However, the Wash would be "gravy" if the ideal goal was actually realized. Thus, the Committee decided to act on the priorities of land acquisition, and voted to submit the following recommendation to the Council:

Priority for land acquisition:

1. 2 100-acre parks in or near IBW.
2. 2 10-acre lagoon parks.
3. 5 neighborhood parks.

And without prejudicing the goal of development of the IBW.⁶⁸

At the December 9 meeting, members discussed the need of a master plan showing IBW as a regional park. After completion of a master plan, the Land and Water Conservation Bill could provide assistance.⁶⁹ Again, quick land acquisition for all park sites was emphasized due to rapidly rising costs.

As 1964 was drawing to a close, the Scottsdale Daily Progress editorialized on "Indian Bend Park", saying that although the idea was worthy, "it will die unless there is strong public backing".⁷⁰ The STEP Committees, coming along at that critical time in the formation of the City's plans, provided the necessary support.

1965 - PARKS COMMISSION AND COUNCIL TAKE INITIATIVE

The Parks and Recreation Commission carried forth much of the work during 1965. The Commission decided in January that the STEP Committee conclusions drawn by the Parks and Recreation Task Group were the same as their own ideas that they had been advocating for the past three years.⁷¹ In March, Bill Walton was appointed to the Parks Commission, and a new IBW Committee was formed from Parks and Recreation members. The Committee took the attitude that Scottsdale must be responsible for the development of the Wash, and since the City would receive the benefits of development, it must be aggressive and not leave the initiative to other agencies.⁷² The Committee met with County officials to discuss a cooperative effort in developing the Wash into a multi-use flood control

recreation area. Although a sidelight, one cannot overlook the importance of the appointment of Bill Donaldson as City Manager in spring of 1965. Donaldson would motivate the staff and lead the City during a time of rapid growth and planning for the future.

In late June, the Parks and Recreation Commission submitted a recommendation to the Council supporting the STEP Committee idea to acquire as much land as possible for parks. That July, Councilman Tims reported back to the Commission that \$1,438,000 had been set aside for park acquisition.⁷³ Then on September 28, the voters passed a bond election for parks. The parks to be acquired included 55 acres near Coronado High and 70 acres near Saguaro High, both in the Wash.

The Council as well as the Parks Commission was concerned about IBW.

In a decision with far-reaching impact, the Council unanimously voted on a motion of Bud Tims to authorize engineer John R. Erickson to "make a study and to analyze the program planned by the Corps (sic) of Engineers for the Indian Bend Wash in view of its importance to the City of Scottsdale."⁷⁴ The engineer eventually would develop the much-discussed "Erickson Plan" which was the first real engineering study for a Greenbelt alternative. Although this plan was never realized, it provided the Corps with a basis for study and showed the City's commitment to a technically sound solution to the flood control problem.

1965-1966 CHANNEL PLAN AUTHORIZED BUT VOTERS GIVE NO FUNDS

The STEP Committees and P&R Commission, as well as the City staff and Council had forged ahead with the idea that a greenbelt floodway could be made of the IBW. The county and federal governments, however, had a different plan to complete. This plan of a concrete channel came one step closer to reality when it gained formal Congressional authorization thru the passage of the Flood Control Act of 1965 (Public Law 89-298) on Oct. 27, 1965.

One major step remained before construction of the canal could begin. Local interests must provide a portion of the costs to cover land acquisition, easements, right-of-way, relocation of streets and utilities, and operation and maintenance costs. Unless the Corps was certain that the responsible local agency would provide these funds, the project would be dropped. As the legal sponsor of flood control projects with Federal participation, the MCFCD had to come up with the money, or channelization of IBW would remain only a plan.

To raise the needed money, the Flood Control District called a county-wide special bond election to be held on March 8, 1966, to vote on the sale of \$22,679,000 worth of bonds. These bonds would provide the county's share in \$115,000,000 worth of county flood control projects. One of the high priority projects under this program was the channelization of IBW. Much newspaper publicity appeared prior to the controversial election. The Scottsdale Daily Progress endorsed the election because Scottsdale received indications that the Corps would allow the City to review the final plans.⁷⁵ Scottsdale's Res. 300 of 1963 endorsed the program, and Res. 12041 of Phoenix, passed May 11, 1965, gave support to the election. Theoretically, the bond issue could raise money for the approved project (concrete channel) and during the review process a Greenbelt alternative could be worked out. The question remained, however, if the Corps and MCFCD had all the required money, would they have quickly completed the original plan?

These questions were never answered, because the bond election met defeat at the County level by a three to one margin. In Scottsdale, the vote totaled 3-2 against the sale of bonds, while 3 precincts (Kachina, Supai, and Navajo) narrowly approved.⁷⁶ Without local funds,

the Corps could not build the concrete channel. Scottsdale, if it wanted any kind of flood control, would have to try to "go it alone."

1966-67 - CITY CONTINUES ON ITS OWN

Despite the county voters, flood dangers remained. Scottsdale now had no comprehensive plan to control flood waters, no funds, and no powers from State legislation or the city charter to adequately regulate development of the flood plain areas.

The city leaders had no choice but to follow a piece-meal approach in developing the Wash as a greenbelt. The first major step came on Aug. 22, 1966, as the city broke ground for a new 55 acre park near Coronado High. We all know this area today as Eldorado Park. Bulldozers moved earth to make the park lower in the middle and higher along the edges, thus allowing control of flood waters. The park would double as the spring training practice area for the Chicago Cubs. In addition, the park would provide picnic and swimming facilities for residents.

Meanwhile, in January of '66, John Erickson produced a very preliminary report, stating Scottsdale now had 3 alternatives -

- 1) Accept the Corps' plan
- 2) Reject Corps' plan - rely on zoning
- 3) Try to modify plan ⁷⁷

At that time, however, modification of the plan presented problems because of the great amounts of water entering the Wash. A plan was needed to cut the flow of water into the Wash. Otherwise, high land acquisition costs would make the project impossible.

A serious flood hit the City on September 13, 1966. Homes were damaged, especially in the Vista del Camino area, the Arizona Canal broke and released water into the Wash, and the city was literally divided in two. Clearly, both the people and the City leaders saw the need for flood control. But since the concrete channel proposal had been turned down by County voters, the City had

to explore other alternatives.

Eisner-Stewart's proposed Comprehensive General Plan, released in December, 1966, gave guidelines for these alternatives and developed the concept of "incentive zoning". The plan recognized the citizen committee recommendation to "develop an integrated system of parks in Indian Bend Wash".⁷⁸ As a method towards realization of this dream for public parks and a scenic parkway drive, the report mentions the "incentive concept". (see sketch)

With the General Plan setting the goal, the City went forward to meet the challenge. John Erickson began developing a plan for upstream dams that would reduce flow of water into Scottsdale and allow open space to take up the slack. The Corps considered modifying its authorized project so that it could participate with the City's plans. Because the City desired quick action, they hoped the Corps could modify the plan since a complete restudy would take at least eight years.⁷⁹

In November of 1967, the citizens of Scottsdale voted to pass amendments to the City Charter.

✓

Most important to the future of the Wash, Question #1 gave power to the City to "designate and establish floodways...and prohibit encroachments and obstructions within that floodway..."⁸⁰ For the first time, Scottsdale had the power to adopt strict ordinances governing the development of IBW.

Then only a month later, in December, 1967, Water Resources Associates released its "Flood Control Feasibility Report", more commonly referred to as the Erickson Report or the Erickson Plan. The report recommended construction of two detention dams in the upstream area, along with a minor earthen channel. Meanwhile, meetings were held with the Corps of Engineers to gain their support. Along with this project, according to Bill Donaldson, would come great increases in the total valuation of taxable property in Scottsdale, with a possible reduction of the tax rate.⁸¹

As another reminder of the ever present threat of flooding, mother nature unleashed yet another storm on Scottsdale in December of 1967. Motorists experienced traffic delays and water once again divided the city.

The Corps, however, decided that \$50,000 and seven months would be needed to make a preliminary study of the Erickson plan to determine its feasibility.⁸² Thanks to the efforts of Congressman Rhodes, the Corps finally received the money and began with the study in November of 1968.

1968 - NEW ORDINANCE, PARKS IMPROVEMENT

On February 6, 1968, John Erickson presented his feasibility study to the Council. That same night, Ordinance #376, the first Indian Bend Wash Ordinance, passed unanimously. The ordinance regulated construction in the IBW, under authority gained in the 1967 Charter Amendment Election. Under this regulation, no construction could take place within the 40,000 cfs limits, except when the flood carrying capacity of the channel was preserved. Burden of proof rested on the developer.

The significance of this ordinance was to allow private developers to begin carrying out the greenbelt concept. By moving dirt from the low area to

the edges and then improving the channel with grass to prevent erosion, the developer could maintain the capacity of the channel, while at the same time building a construction site. If the developer would dedicate the channel portion of the Wash to the City, new zoning arrangements could often be made, much like in the "incentive zoning" concept mentioned in the 1966 general plan. And, of course, any of the developers' improvements would cost no taxpayers money. Besides, construction could begin immediately, without waiting for approval at all levels of the federal bureaucracy.

The Parks and Recreation Commission stayed committed to the goal in 1968. They began discussion of buying acreage near Hayden and Jackrabbit and developing pool facilities (where Chaparral Park stands today). They applied for Land and Water Conservation Funds from the Arizona Outdoor Recreation Commission. With these matching funds, parts of Eldorado Park could be transformed into an urban campground.⁸⁴

1969 - URBAN RENEWAL BEGINS

With the arrival of 1969, the IBW project appeared stagnated. The Corps' studies had not yet reached completion, and reformulation of the plan by the Corps was still out of sight. Not content to sit back and let the Corps do all the work, the City decided to embark on an urban renewal program to "completely eliminate urban blight in Scottsdale".⁸⁵ In making application to HUD for funding, the City hoped to redevelop both the blighted downtown area and the low-income Vista del Camino neighborhood of Yaqui Indians, located in the middle of IBW.

PART II
HISTORY OF IBW - THE 1970'S

During the 1960's, the idea for an open space greenbelt floodway evolved. Studies were made and hearings held, but no specific plan could be agreed upon. The problem of money to finance the greenbelt plan also persisted.

AGENCIES CANNOT AGREE ON PLAN

In 1970, Scottsdale faced a new problem. The Corps of Engineers had completed a study of the Erickson Plan (calling for two upstream detention reservoirs) and found the idea feasible. However, the Corps rejected the concept of the project to provide protection from the 100-year flood of 40,000 cubic feet per second (cfs). Instead, they reasoned, the plan should protect property from the Standard Project Flood (SPF), which was 72,000 cfs in the case of IBW. Reasons cited to provide more protection included increased tendency to protect from the SPF and additional hazards due to reservoirs in the plan.

The protection from the SPF would cost too much for Scottsdale because of greatly increased land acquisition costs for more land behind the detention dams. Thus, with the cost too high, Scottsdale would end up with no flood protection. At this point, a new possible alternative was suggested. The idea involved a combination of protection from the Granite Reef Acqueduct, to be located upstream of the problem areas in IBW, and a greenbelt.¹ However, during this era, the Bureau of Outdoor Recreation was "moving rapidly toward a policy of requiring that waterways through urban and suburban areas be constructed as underground pipelines".² If the acqueduct were built underground, it would not provide flood protection for Scottsdale by cutting off the flow of water into the Wash. Thus, Scottsdale would have to work with the BOR to insure the above ground construction of the acqueduct with its accompanying detention dikes for flood protection.

Bureau of
Reclamation

SALES TAX DEFEATED, CITY SEARCHES FOR ALTERNATIVE

However, no matter how the Greenbelt was to be constructed, the City needed more funds to finance the project. In an attempt to gain the extra funds, the City held a special election on December 15, 1970. The election would have raised the sales tax by 1%. Despite a serious flood in September, the election failed in the wake of organized opposition by the Committee Opposing Scottsdale Tax (COST).

With the defeat of the sales tax, Scottsdale was once again left without funds and without a plan for flood control. Mayor Bud Tims called a special public hearing on January 18, 1971, asking for new ideas since the citizens had turned down the flood control plans. New hopes, however, did not come forth. Mayor Tims concluded in a memo to the Council that the City should go ahead with flood gates at the Arizona Canal, participate in HUD's flood insurance program, continue the incentive zoning policy, and use available money to acquire land in the Wash.³

Although Scottsdale could not continue with a comprehensive plan for flood control, it could at least progress on a piece-meal basis. Flood gates for the canal were a major concern, and in June, 1971, the MCFCD voted to make \$107,000 available to Scottsdale for the gates.⁴ The SRP offered to expedite the matter by doing the construction.⁵ The main problem of acquiring the right-of-way so the gates could be opened remained unsolved.

Meanwhile, Scottsdale continued to meet with representatives from the Corps in efforts to find a mutually acceptable solution that would meet feasibility requirements. With the hard work of City staff members such as Marc Stragier, and efforts by Corps personnel, the two groups gradually agreed upon a common solution. Knowing they had the City's support, the Corps would make every effort to expedite their new plans through the federal bureaucracy. In the meantime, Scottsdale would continue to employ flood plain management techniques and search for new funding sources. And so, on January 28, 1972, the Corps mailed

their "Notice of Initiation of Post-Authorization Planning Studies".⁶ They were beginning the process of reviewing the plan authorized in 1965 and developing a new plan that would be more suitable to current needs.

FLOODS CAUSE DISASTER AND RENEWED CONCERN

Then disaster struck with the flood of June 22, 1972, a 70-year flood and the most damaging in City history. Water backed up behind the canal, causing serious damages to many homes, and the evacuation of patrons from the Safari Hotel. Pictures show guests floating their suitcases in the parking lot. Breaks occurred in the swollen canal, causing more problems. Raging flood waters divided the City. The new homes in the Vista del Camino area escaped harm, but the old houses in the flood's path were ruined. City workers, using helicopters and throwing ropes across the Wash, rescued all the area's residents who had not yet moved to new homes. A man from Detroit, Michigan was reported drowned in the flood. Damages ranged in the millions of dollars. The need for flood control had never been so dramatically displayed to Scottsdale residents.

To cope with the problem, the Public Works Department prepared a four-phase flood control and storm drain plan for capital improvements in July, 1972. The Council approved Phase I and added two engineers to the project in November of that year.⁷ Then in December, after a public hearing, the Council decided to use its revenue sharing funds for flood control projects.⁸ In that same month, the MCFCD approved a study for a siphon of the Arizona Canal under the IBW. The siphon would allow flood waters to enter the Wash unimpeded and would reduce ponding behind the canal.

In February of 1973, the Council called for a special flood control bond election to be held on April 10. The citizens would vote on the sale of \$10,000,000 worth of general obligation bonds to finance flood control and storm drain projects. By this time, the citizens had seen the devastation of floods, both in 1970 and 1972. The time to support flood control had come, and the citizens voted seven to one in favor of the election. This would give Scottsdale the needed money to

get the projects underway, as well as show their commitment and the public's support of the project to other government agencies.

Following the election, in August, 1973 the City was authorized to execute a contract with the MCFCD for joint development of IBW.⁹ The Inter-Governmental Agreement, signed by the two parties on July 24, 1973, provided \$600,000 from the Flood Control District to begin acquiring more land and improving the Greenbelt floodway (from McDonald Drive to north of McKellips Rd.).

1973 PUBLIC HEARING ON GREENBELT PLAN

The next important event of 1973 was the public meeting held by the Corps of Engineers on September 12. The transcript of the meeting shows overwhelming public support for the plan the Corps unveiled. The Corps, during its presentation, told it must restudy authorized plans to insure they still fulfill current needs. In restudying the IBW plan, the Corps considered six alternatives. New circumstances had surfaced, such as the proposed Paradise Valley detention dikes, which would protect the Granite Reef Aqueduct and reduce the 100-year flood in IBW to 27,000 cfs.¹⁰ After re-evaluating all of the information, the Corps decided to recommend a new alternative which combined structural and non-structural features and added recreation as a project purpose.

Four elements would comprise the new flood control project. The inlet area would consist of an unlined channel from Indian Bend Road to McDonald Drive, a siphon of the Arizona Canal under the Wash, and an interceptor along the north bank of the canal to funnel waters to the inlet area. The second feature would be the Greenbelt floodway, developed by the City of Scottsdale. Third, an outlet would collect the flows and carry them to the Salt River. The final feature, a system of side channels, would collect water that backs up behind the side of the Arizona Canal and funnel the flows to IBW. The Corps did not recommend protection from the SPF because of cost and since Scottsdale had already developed much of the Greenbelt according to the 100-year floodline.

The federal government had plans to participate in recreation facilities.

These included a biking and hiking trail from the canal to the river, an equestrian trail in the inlet area, two rest areas with comfort stations, a park near Indian School Road with an information center, an exhibit center near McDowell Road, and a fishing lake near the outlet.¹¹

The federal government would fund the flood control features plus pay 1/2 the cost of recreational features. Local interests would pay for lands, easements, rights-of-way, relocations, the siphon, flood control features in the Greenbelt floodway, 1/2 of the recreational costs, and operational and maintenance costs.

After listening to the Corps' presentation of the plan, others gave comments. Col. John Lowry of the MCFCD expressed pleasure in endorsing the plan on behalf of the Citizens' Advisory Board.¹² Eldon Rudd, a County Supervisor, told about Congressman Rhodes' efforts in Washington to get funding for the needed siphon. Mayor Tims recalled the long history of flood control efforts and praised the Corps for going "beyond the call of duty in redesign required" and being "truly sensitive...to the local spirit".¹³ He continued that the City went ahead when no one else was able to help.

Government officials were not the only ones to voice praise at the hearing, however. The Grand Canyon Chapter of the Sierra Club gave enthusiastic support to the project saying,

"This demonstrates the Corps' ability to solve legitimate engineering problems with a minimum of adverse environmental impact ... the Indian Bend Project demonstrates that cities are indeed for people. And it does so in a way that bends with rather than against nature."¹⁴

Even the Friends of the Earth complimented the Corps. The SRP congratulated those involved on the Greenbelt approach and urged construction of a siphon, as did the City of Phoenix. State Representative Mac Carvalho supported the project. However, he raised questions about inflation because someone had to ask at least a few questions. In all, the public meeting showed overwhelming support for the reformulated IBW Project.

CORPS RELEASES DOCUMENTS

In October, 1973, after the public hearing, the Corps released two important documents related to the project. The General Design Memorandum (GDM) - Phase I gave the new plan formulation for IBW. The GDM recommended a combination structural and non-structural Greenbelt (detailed earlier) at an estimated total cost of \$18,590,000.¹⁵ The Final Environmental Statement (EIS) outlined major impacts of the Greenbelt project, including:

- alteration of natural landscape.
- preservation of open space.
- recreational development.
- preservation of some existing vegetation.
- prevention of more urban encroachment.
- protection of property and life from floods.
- replacement of natural desert flora with urban greenbelt.
- increase of nearby land values.
- relocation of several homes.
- commitment of water resources to maintain Greenbelt (5.25 acre-feet per¹⁶ year).

Statements from various concerned public agencies and environmental groups are also included.

One final significant event occurred in 1973. The MCFCD raised its levy to 20¢ per \$100 assessed valuation. The increased revenues from this charge meant for the first time the County would have the needed funds to participate with the federal government in local flood control projects.

1974 - PROJECT APPROVED, STRIDES TOWARDS COMPLETION

Scottsdale's course for flood control now had direction, and on April 3, 1974, the GDM recommending the Greenbelt plan received final approval from the Corps. Now funding and construction would be the final steps to complete the flood control project.

Scottsdale started accomplishing many of the tasks in 1974. With help from the BOR and the Arizona State Lake Improvement Fund, Scottsdale developed the 74-acre Chaparral Park.¹⁷ Also, with help from HUD and BOR, progress continued at the 60-acre Vista del Camino Park. Bridges over McDonald Drive and McDowell Road were constructed. The McDowell Road Bridge, an all weather

bridge, assured that even if a 100-year flood occurred, the City would not be divided.

In the State Legislature, Senate Bill 1195 authorized expenditure of funds to reimburse local sponsors for costs. In Washington, the Corps' request for funds for fiscal year 1976 had been omitted by OMB, but Congressman Rhodes was alerted to the situation. A Public Works Appropriation Bill passed by the House of Representatives included \$1.1 million for IBW. But with the state of the economy, President Ford decided to freeze some of the funds for the Greenbelt.¹⁸ Col. Jack Foley assured the City that the most important thing was to get the project started, since once construction begins, Congress can usually find the money to finish.

1975 - CITY GAINS NATIONAL RECOGNITION

The year 1975 brought honor and achievement, as well as difficulty to Scottsdale. On the positive side, the National Society of Professional Engineers announced that the Greenbelt had been selected as one of the nation's top ten engineering achievements for 1974. Other good news came from Washington when a telecon message from Congressman Rhodes' office read, "OMB has agreed that the Indian Bend Wash will go ahead as planned".¹⁹ Construction continued, and both McKellips Bridge and Vista del Camino Park were completed. In August, the Council authorized the City to enter into a cost-sharing agreement with the Corps for McKellips Lake.²⁰

Funding problems persisted, however, and contributions from other sources were not as large as expected, due to the general economic ill of the nation and budget cutting at all levels. Scottsdale, however, still had money from the 1973 bond election to work with.

1976 - CONSTRUCTION CONTINUES, CORPS OFFICIAL HONORED

Early in 1976, the Council unanimously authorized a cost-sharing agreement with the USCE for work in IBW.²¹ The cost-sharing agreement tremendously helped the City. Meanwhile, construction continued with the completion of

Thomas Road Bridge, the second 100-year bridge to span the Wash.

Also in 1976, the City Council presented Col. John Foley with a plaque of appreciation. The Colonel was honored for his support of the project and his hard work with both the City and Congressman Rhodes' office to insure that the project would be funded.

EVENTS OF 1977

Progress continued in 1977 with the completion of the outlet and McKellips Lake recreational area. The dedication ceremony for these two projects on August 17, 1977, provided an opportunity for civic pride. Remarks from Lt. Gen. Jack Morris, Chief of Engineers, as well as Congressman Rudd and Rhodes, highlighted the ceremony.

The Council took action to expedite the remainder of the project. Resolution 1595 authorized acquisition of right-of-way for the McDowell Exhibit Plaza, and Council Action two weeks later awarded a construction contract for the facility.²² The bids for the Exhibit Plaza were higher than estimated, but the City could pay back their share over a fifty-year period. The Council later decided that the next structure should be low-flow bridges for Indian School, Camelback and Chaparral Roads.²³

1978 FLOODS CAUSE SETBACKS, PROJECT GOES ON

Floods hit the City in March of 1978, causing great damage to the McDowell Exhibit Plaza that was under construction. However, the facility was completed by December after a nine-month delay. In addition, an intermediate flow bridge was constructed at Camelback Road. Resolution 1712 concerned acquisition of right-of-way for Hayden Road between Chaparral and Camelback, and Resolution 1815 accepted a donation of 3.6 acres of land in the Wash. Piece by piece, the Greenbelt dream was becoming reality.

EVENTS OF 1979

Workers finished construction of both the Indian School Road and Chaparral Road low flow bridges in 1979. Other projects completed included the 100-acre

Continental Golf Course, built with private funds. Completion of the Arizona Canal siphon in April eliminated the barrier across the Wash that had caused many problems in the past. The inlet channel was also completed by the Corps in 1979. Indian School Parks, with its tennis and handball courts, tot lot, park buildings, lighted multi-purpose fields and scores of other facilities was finished by December.

The dynamic nature of the project surfaced again with a proposal to convert part of Villa Monterey's golf course into an "island development". The MCFCD position was outlined by this statement: "To deliberately create divided flows in the main channel of a floodway is, in our opinion, contrary to good engineering judgement and practice."²⁴ The Corps also came out strongly against the Island proposal. In the face of opposition, the developers decided to instead build the units along the floodway fringe. More problems arose, however, as homeowners in the area had purchased their houses with the promise that their property would always front on the golf course.

1980 - A NEW DECADE

The third decade of Scottsdale's flood control efforts commenced with the dedication of Indian School Park, the recreational focal point of the entire project. The ceremony was, in fact, a "Greenbelt reunion", and many of the people who had worked hard on the project through the years gathered to dedicate the park. The ceremony, held on January 19, marked an achievement for the Corps, the MCFCD, the City of Scottsdale and its citizens, and all others who helped create the project.

Scottsdale had come a long way through the years. The Greenbelt was nearly complete. Only the interceptor channel, the side channel system, and parts of the trail system still needed completion. The Greenbelt Floodway itself had been developed by both public and private concerns and was already filling the needs of the community for recreation, open space, and flood control.

ENDNOTES, PART I

Abbreviations used: CM - City Council Minutes
 P & R - Parks and Recreation Commission Minutes
 SDP - Scottsdale Daily Progress

1. Record book #1 - Flood Control District Maricopa County Arizona, August 3, 1959.
2. Interim report, USCE, April 15, 1962, p. 20
3. Ibid, p. 20
4. Ibid, p. 20
5. Ibid, p. 21
6. Kathy Worth, "Millionaire Apartments Granted City Approval," SDP (February 21, 1961).
7. Ibid
8. Ibid
9. Interim report, p. 3
10. CM, August 8, 1961, p. 2
11. Ibid, p. 3
12. Letter from John C. Lowry, MCFCD, to Mr. Thompson, USCE, October 5, 1961.
13. Ibid
14. Letter from Thompson to Lowry, October 17, 1961.
15. Press Release, USCE, December 19, 1961.
16. Ibid
17. Ibid
18. Ibid
19. CM, January 23, 1962, p. 2
20. Ibid
21. Record book #1, February 5, 1962
22. Ibid
23. Interim report, p. 32
24. Ibid, p. i
25. Ibid, p. 21
26. Ibid, p. 25
27. Ibid, p. 29
28. Ibid, p. 33
29. Ibid, p. 36
30. CM, November 20, 1962, p. 5
31. Ibid
32. Letter from the Secretary of the Army, House Document No. 303, May 6, 1964
33. Resolution 235, adopted December 27, 1962.
34. Scacewater, L.B., interviewed by Marjorie MacLean, April 3, 1980, Phoenix, AZ
35. Letter from District Eng., (L.A.) to Division Eng., (San Francisco), August 4, 1964.
36. Warner, Tom, letter to editor, SDP, (November 13, 1963).
37. District Engineer to Division Engineer.
38. "City Council Meets-Discusses Park Plan," The Arizonian (November 21, 1963).
39. CM, November 19, 1963
40. Record book #1, November 20, 1963
41. Ibid
42. Ibid
43. "Plan Consultant Retained by City," The Arizonian (February 20, 1964).
44. Walton, Bill, interviewed by Marjorie MacLean, April 8, 1980, Chandler, AZ.
45. Committee Report on IBW Flood Control Project, July 21, 1964.
46. Ibid, pp. 2-3
47. Ibid, p. 2
48. Ibid, p. 3
49. Ibid, p. 3
50. Ibid, p. 4

51. Ibid, p. 5
52. P & R, July 8, 1964
53. CM, August 4, 1964
54. Ibid, p. 3
55. "Wash Plan Snarled," SDP (August 20, 1964).
56. Ibid
57. CM, September 1, 1964
58. Ibid
59. Ibid
60. "City Still Pushing IBW as Parks Project," The Arizonian (August 28, 1964)
61. P & R, September 22, 1964
62. P & R, October 28, 1964
63. Municipal Capital Improvements 1966-1968, prepared by STEP, March 15, 1965
64. Minutes of STEP P & R Task Group December 2, 1964, pp. 2-3
65. Ibid, p. 3
66. Ibid, p 3
67. Ibid, p. 3
68. Ibid, p. 4
69. Minutes of STEP P & R Task Group, December 9, 1964, p. 2
70. Indian Bend Park, SDP (December 14, 1964)
71. P & R, January 27, 1965
72. P & R, March 10, 1965
73. P & R, July 14, 1965
74. CM, October 5, 1965
75. "Flood Control and Parks," SDP (February 18, 1966)
76. Lee Gould, "Bond Issue Inundated," SDP (March 9, 1966)
77. John Erickson, "Outline of Points for Consideration," January 22, 1966 (City Vault)
78. Eisner-Stewart 1966 Proposed General Plan
79. Letter from W. Donaldson to J. Rhodes, September 27, 1967, p. 2
80. Ordinance 350
81. "Wash Project Would Up Valuation," SDP (November 11, 1967)
82. Letter from Division Engineer to Chief of Engineers, November 22, 1967
83. P & R, April 10, 1968
84. P & R, July 10, 1968
85. Letter from W. Donaldson to Mrs. Alma Alkire, Administrative Assistant to J. Rhodes, October 29, 1969

BIBLIOGRAPHY

SDP - Scottsdale Daily Progress

- "City Council Meets - Discusses Park Plan," The Arizonian, November 21, 1963.
"City Still Pushing IBW as Parks Plan," The Arizonian, August 28, 1964.
Committee Report on Indian Bend Wash Flood Control Project, William Walton, Chairman, July 21, 1964.
District Engineer (Los Angeles) to Division Engineer (San Francisco), August 4, 1964.
Division Engineer to Chief of the Engineers, November 22, 1967.
Donaldson, William to Mrs. Alma Alkire, Administrative Assistant to Congressman Rhodes, October 29, 1969.
Donaldson, William to Congressman Rhodes, September 27, 1967.
Eisner-Stewart and Associates, Proposed Comprehensive General Plan, Scottsdale, Arizona, Vol. 3, December, 1966.
Erickson, John to William Donaldson, March 5, 1970.
Erickson, John, "Outline of Points for Consideration," January 22, 1966.
"Flood Control and Parks," SDP, February 18, 1966.
Gould, Lee, "Bond Issue Inundated," SDP, March 9, 1966.
House Document No. 303, 88th Congress, 2nd Session, letter from the Secretary of the Army, May 6, 1964.
"Indian Bend Park," SDP, December 14, 1964.
Karan, Nicholas, MCFCD to Len Erie, City of Scottsdale, September 11, 1979.
Lowry, John C., to MCFCD to Mr. Thompson, USCE, October 5, 1961.
Municipal Capital Improvements 1966-1968, prepared by the Citizens Committee, Scottsdale Town Enrichment Program, March 15, 1965.
"Plan Consultant Retained by City," The Arizonian, February 20, 1964.
Public meeting for flood control along IBW, Scottsdale High School, September 12, 1973 (transcript available at MCFCD).
Rhodes, office of Congressman John J., telecon to Mayor Jenkins, September 23, 1975, 2:29 p.m.
Scacewater, L.B., interviewed by Marjorie MacLean, Phoenix, Arizona, April 3, 1980.
STEP Parks and Recreation Task Group Minutes, December 2 and 9, 1964.
Thompson, USCE to John Lowry, MCFCD, October 17, 1961.
Tims, Mayor Bud, memo to Council, January 29, 1971.
USCE, Final Environmental Statement, Los Angeles, October, 1973.
USCE, General Design Memorandum - Phase I, Los Angeles, October 23, 1973.
USCE, Interim Report on Survey for Flood Control, Indian Bend Wash, Arizona, Los Angeles, December 19, 1961.
Walton, William interviewed by Marjorie MacLean, Chandler, Arizona, April 8, 1980.
Walton, William, "Scottsdale Told: Plan for Parks," SDP, February 8, 1964.
Warner, Tom, letter to the editor, SDP, November 13, 1963.
"Wash Plan Financing Assured," SDP, November 26, 1974.
"Wash Plan Snarled," SDP, August 20, 1964.
"Wash Project Would Up Valuation," SDP, November 11, 1967.
Worth, Kathy, "Millionaire Apartments Granted City Approval," SDP, February 21, 1961.

Council Action Referred To:

Resolution 235,348.

Ordinances 350, 376.

Council Meetings On:

August 8, 1961
January 23, 1962
November 20, 1962
November 19, 1963
August 4, 1964
September 1, 1964
August 12, 1975
April 26, 1977

October 5, 1965
May 18, 1971
November 21, 1972
December 19, 1972
June 19, 1973
March 5, 1974
February 3, 1976
June 12, 1977

Parks and Recreation Meetings on:

July 8, 1964
September 22, 1964
October 28, 1964
January 27, 1965
March 10, 1965
July 14, 1965
April 10, 1968
July 10, 1968

Meetings of the Board of Directors of the MCFCD, found in Record Book #1, Office of the Clerk of the Board of Supervisors:

August 3, 1959
February 5, 1962
November 20, 1963
June 1, 1971

FLOODPLAIN MANAGEMENT

THE ROLE OF THE IBW ORDINANCES AND PRIVATE DEVELOPMENT

A joint effort by the City of Scottsdale and private developers to follow a mutually beneficial land use management policy made possible the Greenbelt solution for IBW. Scottsdale has succeeded where many other communities have failed - in adhering to sound floodplain management techniques and working with the developer to reach a common goal.

Many people owned land in the lower reach of IBW. Due to the difficulties and cost of acquiring land, the concrete channel approach was initially favored by some government officials. If the open space/Greenbelt approach were to be feasible, Scottsdale would have to find means to acquire substantially larger parcels of property. Additional finances would then be needed to improve the channel by grading and landscaping to control erosion and channel the water. And in the years before acquisition and improvement could take place, the City would have to restrict building in the Wash or flood damages would occur and future flood control projects would be hampered by the already present development.

Scottsdale took its first step towards floodplain management with the passage of Resolution 348 on October 6, 1964. This resolution made formal an unwritten policy the Council had followed for two years. The Council feared that if they allowed construction in the Wash, they could later be held responsible for flood damages. Basically, the resolution instructs City officials not to issue construction permits for areas between the limits of the 40,000 cubic feet per second (cfs) flow (the 100-year flood at that time) as delineated by the Corps. Exceptions to the rule, however, could be made based on the following criteria, taken from Resolution 348:

- A. Construction between the 20,000 and 40,000 cfs will be permitted provided properly constructed fills are made to the level of 40,000 cfs;
- B. Construction of golf courses, parks, cultivated areas and similar facilities will be permitted provided the capacity of the channel is not materially reduced and provided no hazardous concentration or diversion is created;
- C. Construction will be permitted where ever proper care is taken to preserve the capacity of the waterway and where no substantial hazard to adjoining property is created.

Resolution 348 was a needed and successful step towards preventing encroachment in the floodplain. Two challenges remained, however. How could Scottsdale acquire land or obtain easements and right-of-way at a cost they could afford? Once they had the land, how could they afford to develop and maintain it all? The answer came in the 1966 General Plan, which outlined the concept of "incentive zoning". Planners designed incentive zoning to benefit both the developer and the City as a whole. The concept applied mainly to property along the fringe of the Wash, usually property that was partially in the Wash and partially on high ground. As the General Plan explained, property owners could give the part of their land in the Wash to the City. To compensate for this loss, the City would allow them to build more units on their remaining property.

Scottsdale expanded on this idea. Property owners would have more buildable property if they moved dirt from the center of the Wash to the fringe. Then by planting grass to control erosion, the wandering floodplain would be controlled. Scottsdale's plan became economically feasible when officials realized they could require private interests to make the necessary channel improvements.

Although Resolution 348 was a good step, the City had little authority until the 1967 Charter Amendments. When voters passed the Amendments they gave the City the power to establish floodplains and control growth.

With the powers granted by the Charter Amendments, the City Council passed Ordinance 376, the first ordinance regulating development in IBW, on February 6, 1968. The ordinance basically follows Resolution 348, but property owners now had the burden of proof to show the City they complied with the rules. A maximum \$300.00 fine and/or 60 day jail sentence could be applied to convicted violators.

During the years spent going through the bureaucracy modifying the concrete channel plan to the Greenbelt plan, Scottsdale was already making progress by allowing private developers to improve the Wash, subject to the provisions of Ordinance 376. The change came in April, 1974, when the Council adopted Ordinance 795, which would comply with new state laws regarding the rights and responsibilities of municipalities in floodplain management. This ordinance restricted construction in the 50-year floodplain, and it also gave procedures for removal of obstructions. It was soon found, however, that this ordinance did not comply with all the federal insurance regulations. To remedy the situation, Ordinance 853, passed on November 19, 1974, repealed Ordinance 795 and set forth new regulations, including restriction of construction in the 100-year floodplain. Ordinances 879 and 907, both of 1975, amended Ordinance 853.

Another change came on July 20, 1976, when the Council adopted Ordinance 957. This ordinance repealed previous ordinances and consolidated City policy into one document. Details about finished floor elevations and parking in the floodplain were added.

Ordinance 957 was later repealed by Ordinance 1015 of March 1, 1977, although the new ordinance differed little. More amendments came with

Ordinance 1121, allowing certain wet-street crossings, and Ordinance 1131, adding special considerations for hillside districts. These final two amendments both passed in 1978.

Today's IBW Ordinance, 1015 as amended by 1121 and 1131, is more refined, technical and complicated than the original ordinance passed in 1968. Compliance with state and federal regulations necessitated much of the change. The purpose, however, remains the same: to allow orderly development in the floodplain area that will be free from the threat of flooding and also improve the flood channel to the benefit of all.

CITIZEN PARTICIPATION

Scottsdale's unique Greenbelt represents the citizens' dreams, and thanks to their persistence and foresight, the dream has become a reality and a model to other communities all across the nation.

Scottsdale has always been a city where citizens are important and their ideas are heard. In the case of the IBW, the citizens developed the Greenbelt alternative to the MCFCD and Corps' concrete channel.

From discussions with various old-timers, it appears as though the idea of an open grassy floodplain was already the talk of the town by 1963. Bill Walton, drawing his inspiration from the Villa Monterrey golf course, first set these ideas down on paper with a February, 1964 guest editorial for the Scottsdale Daily Progress. Mr. Walton then chaired a committee, comprised of citizens and City staff, which reported to the Council in July, 1974.

The Scottsdale Town Enrichment Program (STEP), established in November, 1964, gave over 100 citizens the opportunity to define the City's goals and set up a three-year program for capital improvements. The STEP Committee of Parks and Recreation overwhelmingly endorsed the Greenbelt idea and gave it the public support necessary to reach completion in the face of seemingly insurmountable obstacles.

In 1965, citizens provided further support at the polls by passing a bond election to buy parkland. In 1967, voters again rallied to the polls to pass City Charter Amendments, one of which gave the City the needed power to regulate floodplains. The citizens showed they would pay more for better flood control, passing a 1973 \$10 million bond election by a 7 to 1 margin. And not to be overlooked, Scottsdale citizens helped to re-elect, over and over again, Congressman Rhodes, one of the Greenbelt's most arduous supporters.

Besides voting at the polls, Scottsdale's residents were willing to give up their valuable free time to serve the City through various committees and commissions, such as the ongoing STEP Committess and the Parks and Recreation Commission.

It has been said that the citizens' role came mainly in the early days of conceiving the project. Although professional engineers figured out the calculations and government employees hammered out funding and other agreements, the citizens never lost their communication with their leaders, and they never relinquished their support of the Greenbelt project.

INTERVIEWS

<u>DATE</u>	<u>PERSON</u>	<u>PLACE</u>
3/24/80	Marc Stragier	City Hall
3/27/80	Diane Cusack	City Hall
3/28/80	Ron Ruziska	Economic Development Office
3/28/80	Billie Gentry	City Hall
4/1/80	Mayor Jenkins	City Hall
4/3/80	Bud Tims	Office of Az. Corps. Commission
4/3/80	L.B. Scacewater	Plaza Municipal Building-Phoenix
4/8/80	Bill Walton	Chandler City Hall
4/9/80	George Iannella	Office-Phoenix
4/9/80	Len Erie	Office-Phoenix
4/14/80	George Fretz	Office-Scottsdale
4/15/80	Dick Filler	Scottsdale Center for the Arts
4/15/80	Bill Matthews	MCFCD Office
4/17/80	Reggia Kabashigawa	USCE L.A.-Hydraulics Section
4/17/80	Bob Wood	USCE L.A.-Recreational Development
4/17/80	Ed King	USCE L.A.-Project Manager
4/18/80	Jim Ueda	USCE L.A.
4/23/80	John Erickson	Office-Scottsdale
5/12/80	Tim Bray	City Hall
5/13/80	David Harris	Scottsdale Center for the Arts
5/21/80	Al Mejia	City Hall

WHERE TO FIND INFO ON THE I.B.W.

LOS ANGELES

Office of the Corps of Engineers - Files include:

reports
newspaper files
public hearings
official Corps memos
correspondence with Scottsdale, Tempe and MCFCD

Note: The Corps maintains the finest set of records that I have seen on the project. Everything is well organized and easy to find. ✓

PHOENIX AND VICINITY

Office of the Corps of Engineers - Resources include:

reports by Corps
posters
slides of the project

Office of Flood Control District of Maricopa County - Resources include:

reports by Corps
correspondence
some public hearing information

Office of the County Clerk - Resources include:

minutes of the Board of Supervisors and the Board of Directors of the MCFCD, resolutions, and public hearing information

City of Scottsdale

Engineering Dept. - some of the Corps' reports, maps

Public Information Office - brochures and slide show

Recreation - Recreation slide show, records on park use, recreation film, minutes of the Parks and Recreation Commission

Public Library - A variety of information in Municipal Reference, the Southwest Room, and the pamphlet file for the Southwest room. For private citizens, this is the place to go to see Erickson's Feasibility Report, Stewart-Eisner Master Plan, etc.

Community Development Dept - Tim Bray's file

Office of City Clerk - minutes of Council meetings, index to Council minutes, index to basement files.

The Basement - Two rooms full of cardboard boxes of files. Location of material is difficult to impossible. Area also includes old copies of The Arizonian.

The Vault - Located adjacent to the mailroom. Documents easier to find than in basement. The following directions should provide a good start:

1st bookcase on right after entering - 3rd shelf up from floor - Council minutes

2nd sliding bookcase, south side, 4th shelf up - STEP Committee books

North Wall - wooden shelves - 4th shelf up - piles of info about Wash, including Erickson Report, Vista appraisals, maps, files, etc. Most information found here.

LIST OF WORKS TO CONSULT

INDEXES TO CONSULT:

STEP Index (David Matthews, P.I.O.)

Newspaper Index (David Matthews, P.I.O.)

Chronology of Scottsdale (David Matthews, P.I.O.)

Index to Council Minutes (Office of City Clerk)

INFORMATION FROM THE U.S. ARMY CORPS OF ENGINEERS

• Interim Report on Survey for Flood Control

Indian Bend Wash, Arizona (with appendixes)
U.S. Army Dist., L.A. Corps of Engineers, April 15, 1962.
(Blue cover, available at MCFCD or Phx. USCE office recommends concrete channel)

• Flood Plain Information Study, Maricopa County, Volume I, Indian Bend Wash Report, June 1964 (yellow cover).

• Final Environmental Statement, Oct. 1973 (gray cover)
Design Memorandum (DM) No. 1

• General Design Memorandum (GDM) - Phase I, Plan Formulation for Indian Bend Wash, Oct. 1973. (Blue cover - recommends Greenbelt approach).

- . DM#1, GDM - Phase I, Supplementary Report on Side Channels System, Sept. 1974 (light brown cover).
- . DM #1, GDM Phase II, Project Design for Indian Bend Wash, January 1975 (light green cover)
- . DM #1, GDM Phase II, Project Design for IBW, Supplemental Report #1, April, 1976.
- . DM #2, Recreation MasterPlan, May 1975 (brown cover)
- . DM #2, Recreation Master Plan, Supplemental Report No. 2, Jan. 1977
- . DM #3, Feature Design for Inlet Channel, Jan. 1978
- . Report on Flood of 22 June 1972, Phoenix Metropolitan Area, Arizona, October 1972
- . Indian Bend Wash, 1978, photographs of Wash with parcel by parcel description of improvements

REPORTS BY THE CITY OF SCOTTSDALE

Flood Control Status Report, City of Scottsdale, Arizona, January 1977, with appendixes.

Gentry, Billie Axline, Scottsdale City Councilman, and Matthews, David, Public Information Officer, slide show titled "Indian Bend Wash ... Scottsdale, Arizona," 1980

Rozelle, Martha A., Neighborhood Redevelopment The Scottsdale Story, March 1978

Scottsdale Indian Bend Wash Greenbelt Acreage Report, prepared by the Economic Development Program, March 1977.

Shrum, Jim, transcript for recreation slide show, 1979.

Stragier, Marc C., "Scottsdale's Greenbelt Flood Control Project," 6 pages, undated.

REPORTS FROM SCOTTSDALE COMMITTEES

Committee Report on Indian Bend Wash Flood Control Project, William Walton, Chairman, July 21, 1964.

Municipal Capital Improvements 1966-1968, prepared by the Citizens Committee, Scottsdale Town Enrichment Program, March 15, 1965.

OTHER REPORTS AND DOCUMENTS (by date)

Comprehensive Flood Control Program Report, prepared by the Flood Control District of Maricopa County, 1963, pp. 11, 13-15, 62-66.

Indian Bend Wash, Gila River Basin, AZ, House Document No. 303, 88th Congress 2nd Session, Letter from the Secretary of the Army, May 6, 1964.

Proposed Comprehensive General Plan, Scottsdale, Arizona, Volume 3, Eisner-Stewart and Associates, Dec. 1966.

Flood Control Feasibility Report, Indian Bend Wash, Maricopa County, AZ, Water Resources Associates, Dec. 1967 (often referred to as the "Erickson Report")

Chaparral Park Master Plan, Royston, Hanamoto, Beck & Abey, Landscape Architects, Nov. 1972

State Flood Control Program, Arizona Water Commission, March 1973

INFORMATION FROM PUBLIC RECORDS

Minutes of the Scottsdale City Council, City Vault (see index for appropriate dates)

Minutes of the Parks and Recreation Commission, available at Community Services Department, Scottsdale Center for the Arts

Minutes of the Board of Directors of the MCFCD, Record Book #1, Office of the Clerk of the Board of Supervisors

TRANSCRIPTS AND MINUTES OF PUBLIC HEARINGS

Dec. 9, 1959 - nothing available

Jan. 29 and Feb. 5, 1962 - Public Hearing on IBW Flood Control, Record Book #1, Flood Control District, Office of the County Clerk

Nov. 20, 1963 - Public Hearing on Comprehensive Flood Control Program for Maricopa County, Record Book #1, Office of the County Clerk

Sept. 12, 1973 - Public Meeting for Flood Control Along IBW, held at Scottsdale High School, transcript available at the FCDMC.

OTHER ORIGINAL SOURCE MATERIAL

Information from City, MCFCD and Corps' files such as pertinent correspondence, inter-office memos, and records of meetings

Correspondence from Congressman Rhodes' Office.

City Resolutions:

235, Dec. 27, 1962, endorses concrete channel

300, Nov. 19, 1963, endorses Comprehensive Flood Control Program of MCFCD

348, Oct. 6, 1964, regulates development of IBW

611, Jan. 16, 1968, endorsing County "pay-as-you-go" program

821 and 1815, regarding land acquisition

1595, April 12, 1977, authorizing Corps to enter City property to build Exhibit Plaza

City Ordinances:

350 - City Charter Amendments

376, 795, 853, 879, 907, 957, 1015, 1121 and 1131 - regulating construction in IBW

SECONDARY SOURCE MATERIAL

Newspaper Reports from the Scottsdale Daily Progress, the Arizona Republic, the Phoenix Gazette, and The Arizonian - consult city files for indexing

News Releases, Magazine Articles and Papers

Artz, Leonard, "Engineering Achievements in Energy, Aerospace, Water, Bioengineering Honored by NSPE," Professional Engineer (Vol. 45, No. 5), May 1975, pp. 46-49.

Byrne, Michael G. and Ueda, James Y., "On a Rampage Through a Suburb," from Water and Landscape a Landscape Architecture Book edited by Grady Clay, Editor Landscape Architecture Magazine, McGraw-Hill Book Co, NY, 1979, pp. 104-110.

"Croquet, boccie, raquetball, and more - all at new Scottsdale park," Sunset Magazine, May 1980, pp. 9-10.

Erie, Len P.E., M. ASLE, "A Case Study of Recreation, Flood Control And Land Use in Indian Bend Wash Scottsdale, Arizona," prepared for the International Committee on Irrigation, Drainage and Flood Control, Grenoble, France, Sept. 1981.

Foley, Col. John V., "Indian Bend Wash," The Military Engineer (No. 433), May-June 1976, pp. 262-265.

"Indian Bend Wash," Project Reference File (Vol. 7 No. 5), the Urban Land Institute, Jan-March 1977 (note - several figures used appear inaccurate).

"Indian Bend Wash Flood Project Cited for Award," Arizona Professional Engineer, May 1975, pp. 8, 9, 17.

Rhodes, Congressman John J., News Release, June 1, 1979 (compares IBW to Rio Salado).

Ruiz, Charles, P.E., "Indian Bend Wash Greenbelt A City of Scottsdale, Arizona Achievement," from proceedings of a seminar on Nonstructural Flood Plain Management Measures, sponsored by The Hydrologic Engineering Center, Institute for Water Resources, USCE, May 4-6, 1976.

"Scottsdale's dry wash will be an environmental attribute," ENR, Jan. 1, 1976, pp. 16-17.

"Scottsdale's flood control is a big new green park," Sunset Magazine (Vol. 160, No. 3), March 1978, pp. 88-91.